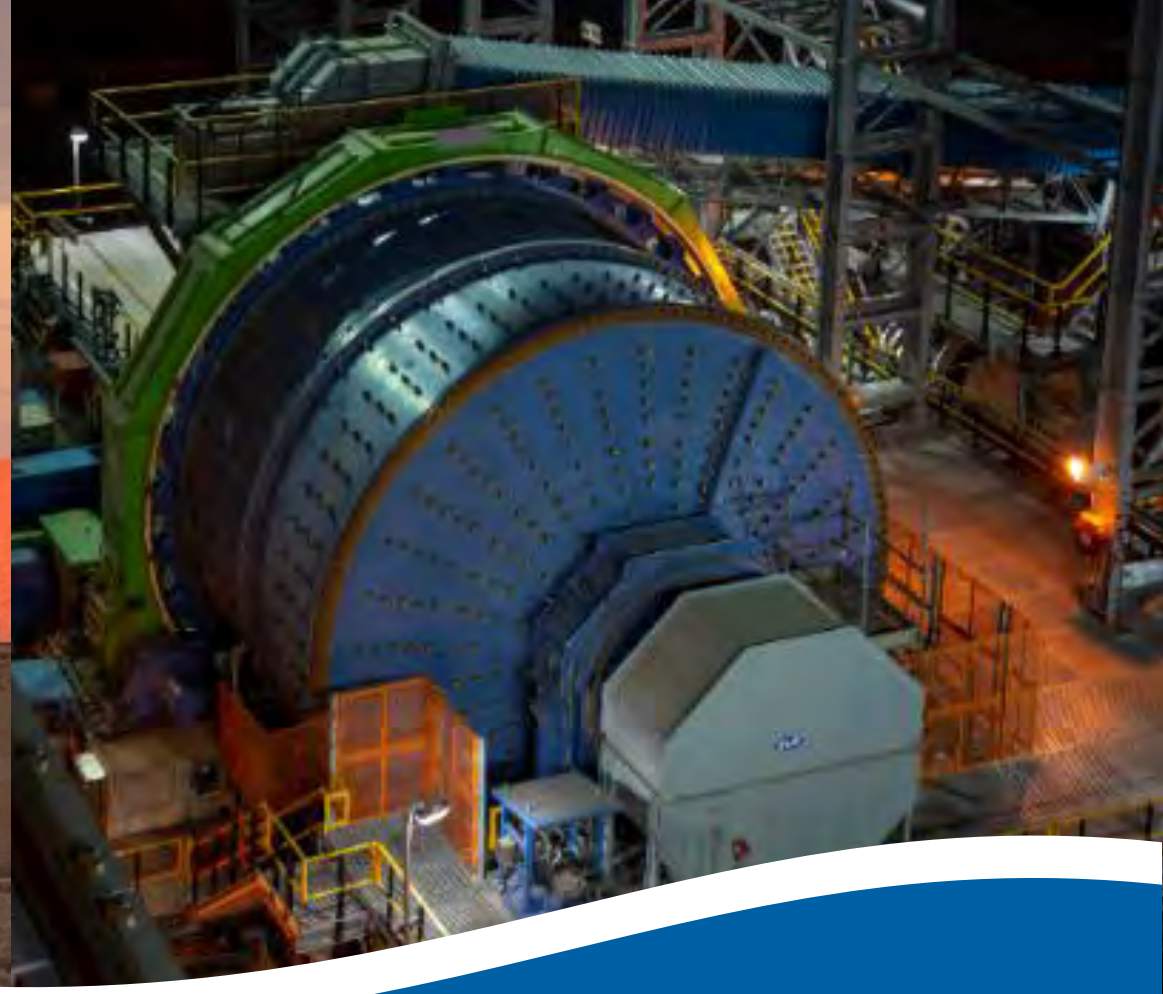

BE PART OF OUR
GROWTH STORY

Gamsberg Mine Traffic Management & Technology Readiness – Large Mine

24 October 2025

Black Mountain Mine

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black mountain

Black Mountain Mining - Gamsberg Mine

- Gamsberg is one of the three mining operations of **Black Mountain Mining (Pty) Ltd**.
- Black Mountain Mining is owned by diversified global natural resources and technology conglomerate, **Vedanta Resources Limited**.
- Gamsberg is the **6th Largest Zinc Project** in the **World** and **Largest Zinc Mine in Africa**.
- Located ~20km east from Aggeneys, **Northern Cape**, next to the N14 between Springbok and Pofadder.
- Comprises an **open-pit mine** and **concentrator plant.**
- Produces **~4Mt Zinc Ore** and **200-250kt MIC** p.a.
- **Phase II Concentrator plant** underway to double production to **8Mt Zinc Ore** and **450-500kt MIC p.a.**
- Potential to produce up to **10Mt Zinc Ore** and **1Mt MIC** p.a.
- Open-pit comprises 3 pits, namely **South, East and West pits**, with ore mined in East and West Pit.
- Operating a fleet of **~500 Trackless Mobile Machinery** to deliver production.

TMM Risk, LoC1-6, Technology Evaluation, CPS SOW, Procurement, TMP

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TMM Risk Assessment

Significant TMM Risks

- The worst case consequence of any vehicle to vehicle (V-V) and vehicle to pedestrian (V-P) interaction is a fatality irrespective of the speed of the vehicle(s).
  CONSEQUENCE ≥ **HIGH**
- Unless prevented, it can be agreed that there will be a "noteworthy" likelihood that occupational injury or harm to persons will occur as a result of V-V or V-P collision.

Interaction Risk Evaluation
- Incident Review
- Control Effectiveness Evaluation
- CMS Strategy
- CMS Scope

Session 1 : Incident Review
- Interactors (equipment, plant, personnel)
- Interaction Type
- Interaction Scenario
- Interaction Speed
- Threat & Hazard
- Control Failure
- Risk Rating (per incident)
- *Priority Interactions*
- *Priority Interactors*

Session 2 : Control Effectiveness Review
- Control Assessment
- Control Allocations
- Control Evaluation

Session 3 : Preparation of CMS Strategy
- *Define significant risk*
- *Improvements in site controls (Levels 1-6)*
- *New / improved technology controls (Levels 7-9)*

Output : Interaction Risk Report

March 23

Mobilisation

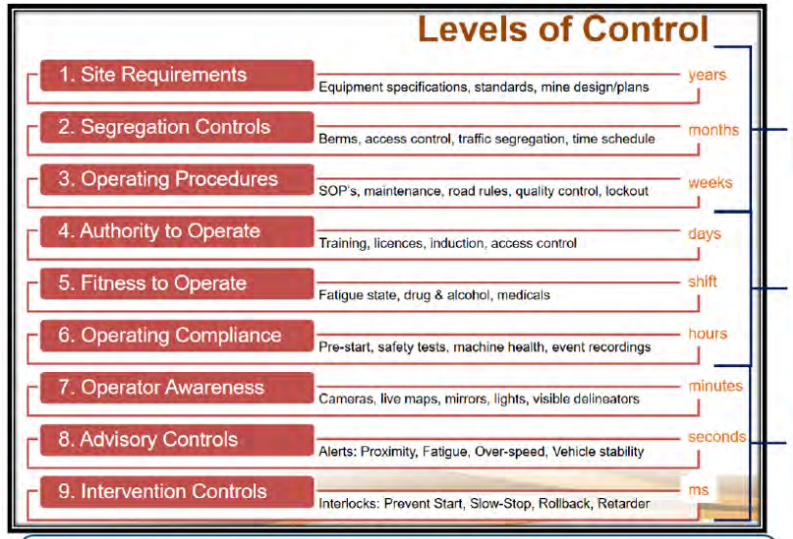
Scope finalization, timelines and costing for Phase1

Phase 2: CPS + Interfaces Advance **CAPEX** Required

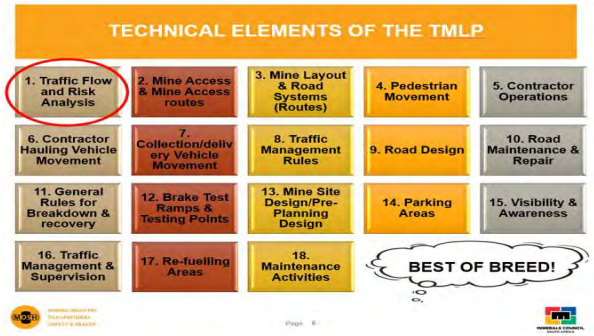
Phase 3: TMP CAPEX/OPEX Required

April 23

Project Phase 1 Execution



Processes and execution on the ground be reviewed/assessed
Traffic Management Plans to be assessed



May-July 23

Functional Phase 1

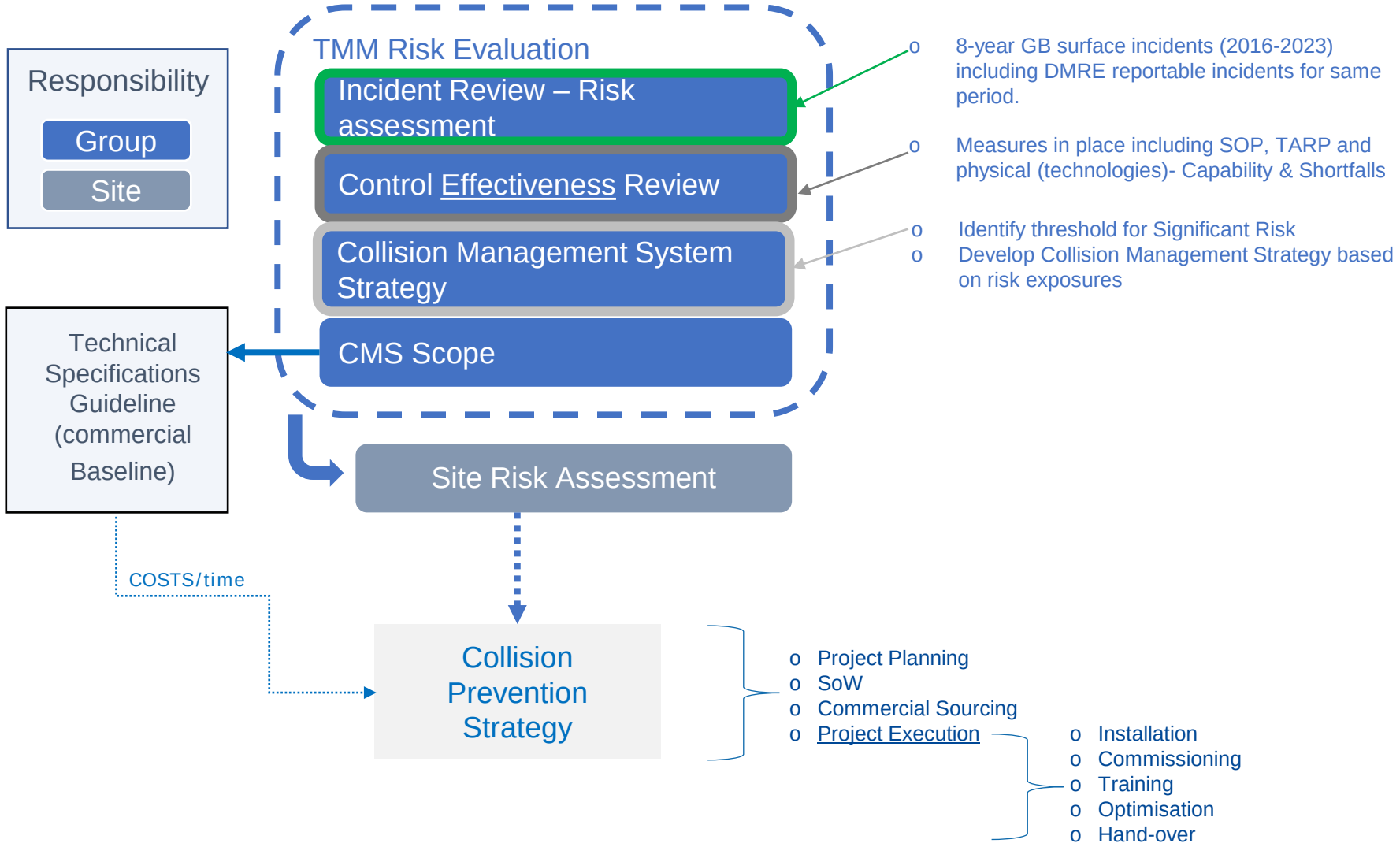
CPS L9 Project Phase 2

Operational TMLP Phase 3:

- ✚ Fatigue, ADAS
- ✚ Rear Cameras
- ✚ Limit LDV's

August 23 – Mar 26

Collision Management Strategy



Incident Analysis

Interaction Type		Incidents	Weighted Risk	Rev : 3-10	Rev : 0-3	Stationary	Swinging	Fwd : 0-3	Fwd : 3-10	Fwd : 10-30	Fwd : 30-55+
		126	40622	0.8% 314	26.2% 10657	8.4% 3426	0.0% 10	16.9% 6861	28.8% 11713	4.0% 1609	14.9% 6034
LoC	Uncontrolled Equipment / Attachment	44	15270	300	1022	30	10	5333	2016	526	6033
V-V	Equipment to Equipment Interaction	29	14188	10	5015	1001	-	90	7001	1070	0
V-P	Equipment to Person Interaction	19	8840	-	4010	2394	-	1103	1333	-	-
V-E	Equipment to Environment Interaction	34	2325	4	611	1	-	334	1363	12	-

Interaction Type - Speed

Highest Risk TMM's in order of Ranking High to Low

Local Object				Interaction Type / Weighted Risk + Maximum Risk Rating							
Interactor	Object Code	Incidents	Weighted Risk	Person		Equipment		Environment		Uncontrolled	
				V-P		V-V		V-E		LoC	
				WR%	RR	WR%	RR	WR%	RR	WR%	RR
		126	40622	22%		35%		6%		38%	
Dump Truck (>50T)	SME_PRI	47	25466	10.1%	24 (H)	27.1%	24 (H)	0.8%	19 (S)	24.7%	24 (H)
Front End Loader	SME_SEC	13	4057	4.9%	22 (H)	2.5%	22 (H)	2.5%	22 (H)	0.1%	17 (S)
Skid Steer Loader	SME_SEC	2	3001		-		-		-	7.4%	24 (H)
Track Dozer	SME_SEC	6	1031	2.5%	22 (H)		-	0.1%	13 (S)		-
Tele-handler	SME_SDV	4	1030	0.1%	13 (S)		-		-	2.5%	22 (H)
Excavator / Shovel	SCE_PCE	4	1012		-	2.5%	22 (H)	0.0%	8 (M)	0.0%	13 (S)
Delivery Truck	SME_RTV	2	1000		-	2.5%	22 (H)	0.0%	4 (L)		-
ADT (<50T)	SME_SEC	2	1000		-		-		-	2.5%	22 (H)
Diesel Bowser (<50T)	SME_SEC	1	1000	2.5%	22 (H)		-		-		-
Mobile Crane	SME_SEC	3	304		-		-	0.7%	19 (S)	0.0%	9 (M)
Water Bowser (<50T)	SME_SEC	2	301		-		-	0.7%	19 (S)	0.0%	8 (M)
Grader	SME_SEC	1	300	0.7%	19 (S)		-		-		-
Cherry Picker	SME_SDV	1	300	0.7%	19 (S)		-		-		-
Forklift	SME_SEC	2	270		-		-	0.7%	21 (H)		-
Drill Rig	SME_SEC	3	183	0.2%	18 (S)	0.2%	18 (S)		-		-
LDV	SME_SDV	18	181	0.0%	9 (M)	0.1%	17 (S)	0.0%	13 (S)	0.3%	18 (S)
Flat Back Truck	SME_RTV	2	90		-		-	0.2%	18 (S)		-
Tipper Truck	SME_RTV	7	64	0.0%	9 (M)	0.1%	17 (S)	0.0%	8 (M)	0.1%	17 (S)
Mini Bus	SME_SDV	2	10		-		-	0.0%	13 (S)		-
Wheel Dozer	SME_SEC	1	10		-	0.0%	13 (S)		-		-
LDV Trailer	SSP_TSP	1	10		-		-		-	0.0%	13 (S)
Emulsion Truck	SME_RTV	1	1	0.0%	8 (M)		-		-		-
Service Truck	SME_SDV	1	0		-	0.0%	4 (L)		-		-

Priority Interactors & TMM Risk

Weighted Risk

Weighted risk is a system used to give a priority ranking to risk exposures

Level	Risk
(H)	High Risk
(S)	Severe Risk
(M)	Medium Risk
(L)	Low Risk

Reasonable Consequence

Probability (P)	P x S x E x N	Manageable	Moderate	Major	Significant	Critical	*Probability (years)*
10	**Almost Certain**	**11 (M)** 1	**16 (S)** 9	**20 (S)** 100	**23 (H)** 900	**25 (H)** 10,000	<1 year
3	**Likely**	**7 (M)** 0.3	**12 (M)** 2.7	**17 (S)** 30	**21 (H)** 270	**24 (H)** 3000	1-3 years
1	**Possible**	**4 (L)** 0.1	**8 (M)** 0.9	**13 (S)** 10	**18 (S)** 90	**22 (H)** 1000	3-10 years
0.3	**Unlikely**	**2 (L)** 0.03	**5 (L)** 0.27	**9 (M)** 3	**14 (S)** 27	**19 (S)** 300	10-30 years
0.1	**Rare**	**1 (L)** 0.01	**3 (L)** 0.09	**6 (M)** 1	**10 (M)** 9	**15 (S)** 100	>30 years

Likelihood

Safety	**F**irst **A**id **C**ase	**M**edical **T**reatment **I**njury	**L**ost **T**ime **I**njury	**S**erious **I**njury	**S**ingle **F**atality **I**ncident
Severity (S)	0.1	0.3	1	3	10
Exposure x Number of Persons (ExN)	1	3	10	30	100

"Weighted Risk" is closely related to the "Risk Priority Number" defined in `ISO/CD 19014 Earthmoving machinery – Safety – Part 1 – Risk assessment methodology to determine control system performance requirements

Significant Risk

TMM Risk Evaluation
- Incident Review
- Control Effectiveness Review
- Collision Management System Strategy
- CMS Scope

Incident Database

Local Object
(Type of Equipment)
Interaction Type
(People / Vehicle / Env. / LoC)
Risk Ratings
(Actual / Potential / Likelihood)

Local Interactor	EXAMPLE	Interaction Type											
		Person			Vehicle			Environment			Loss of Control		
Name	Weighted Risk (WR)	WR	% of Total WR	Max Risk Rating	WR	% of Total WR	Max Risk Rating	WR	% of Total WR	Max Risk Rating	WR	% of Total WR	Max Risk Rating
Haultruck	76,412	29,655	18.9%	25 (H)	26,757	17.1%	24 (H)	-	-	-	20,000	12.8%	23 (H)
FEL	31,903	2,059	1.3%	24 (H)	29,844	19.1%	16 (S)	-	-	-	-	-	-
Side Tipper	29,330	12,010	7.7%	18 (S)	11,320	7.2%	19 (S)	-	-	-	6000	3.8%	20 (S)
LDV	19,000	800	0.5%	13 (S)	200	0.1%	13 (S)	2,100	1.3%	16 (S)	15,900	10.1%	21 (H)
	156,645												

"Significant Risk" = Risk Rating +

Total Risk Exposure

Significant Risk	
Threshold %	Coverage
15.0%	51.9%
12.5%	51.9%
10.0%	61.9%
7.5%	61.9%
5.0%	69.3%
2.5%	74.3%

Consequence Level

Likelihood	Manageable	Moderate	Major	Significant	Critical	Time Frame
Almost Certain	11 (M)	16 (S)	20 (S)	23 (H)	25 (H)	<1 year
Likely	7 (M)	12 (M)	17 (S)	21 (H)	24 (H)	1-3 years
Possible	4 (L)	8 (M)	13 (S)	18 (S)	22 (H)	3-10 years
Unlikely	2 (L)	5 (L)	9 (M)	14 (S)	19 (S)	10-30 yrs
Rare	1 (L)	3 (L)	6 (M)	10 (M)	15 (S)	>30 years

Weighted Risk

PxEx SxN	(ExN) 1	3	10	30	100
(P) / (S)	0.1	0.3	1	3	10
10	1	9	100	900	10000
3	0.3	2.7	30	270	3000
1	0.1	0.9	10	90	1000
0.3	0.03	0.27	3	27	300
0.1	0.01	0.09	1	9	100

- **Significant Risk Qualification**
- More than 10% of the total Weighted Risk for site of the surface incidents analysed during the workshop
- Have the potential to cause a fatal within the next 5 years (18S) or (21-25H)

Risk Assessment – Significant Risk TMM GB Mine

BASELINE ANALYSIS OF MOBILE EQUIPMENT INTERACTION RISK
VEDANTA GAMSBURG (OPENCAST), SOUTH AFRICA

DRAFT
30-MAR-2023
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BASELINE ANALYSIS OF MOBILE EQUIPMENT INTERACTION RISK – VEDANTA GAMSBURG (OPENCAST), SOUTH AFRICA

Priority Interactors *- equipment identified as contributing greatest risk per interaction type.*

Local Object			Interaction Type / Weighted Risk + Maximum Risk Rating							
Interactor	Incidents	Weighted Risk	Person		Equip-ment		Environ-ment		Uncon-trolled	
			V-P		V-V		V-E		LoC	
			WR%	MRR	WR%	MRR	WR%	MRR	WR%	MRR
Haultruck (>50T)	59	6986	8.4%	88 (Ex)	27.6%	96 (Ex)	1.1%	80 (Ma)	7.7%	88 (Ex)
ADT (<50T)	31	5624	14.8%	88 (Ex)	0.4%	56 (Ma)	0.0%	24 (Mo)	20.8%	88 (Ex)
LDV	23	1109		-	0.1%	52 (Ma)	0.3%	56 (Ma)	6.8%	88 (Ex)
Cherry Picker	1	1000	6.4%	88 (Ex)		-		-		-
Front End Loader	13	464	2.5%	80 (Ma)	0.5%	56 (Ma)	0.0%	16 (Ne)	0.0%	16 (Ne)
Track Dozer	7	163	0.7%	68 (Ma)	0.1%	52 (Ma)	0.1%	52 (Ma)	0.2%	56 (Ma)
Drill Rig	2	90	0.6%	80 (Ma)		-		-	0.0%	16 (Ne)
Side Tipper Truck	2	60		-	0.2%	56 (Ma)		-	0.2%	56 (Ma)
Excavator	7	23		-	0.1%	52 (Ma)		-	0.0%	40 (Mo)
Water Bowser (>50T)	3	13	0.1%	52 (Ma)	0.0%	40 (Mo)		-		-
Tipper Truck	2	13		-		-		-	0.1%	52 (Ma)
TLB	2	11	0.1%	52 (Ma)	0.0%	36 (Mo)		-		-
Personnel Transporter	2	10		-	0.0%	16 (Ne)		-	0.1%	52 (Ma)
Tele-handler	1	10	0.1%	52 (Ma)		-		-		-
Service Truck	5	9		-	0.1%	48 (Ma)	0.0%	16 (Ne)	0.0%	16 (Ne)
Skid Steer Loader	2	6		-		-	0.0%	32 (Mo)	0.0%	32 (Mo)
Grader	1	3		-	0.0%	40 (Mo)		-		-
Diesel Truck (<50T)	1	0		-		-	0.0%	20 (Ne)		-
Stacker Reclaimer	1	0		-	0.0%	20 (Ne)		-		-

L9 TMM's at Gamsberg Mine

1. Haul Trucks

- Vehicle to Person – 8,4%
- Vehicle to Vehicle – 27,6% **[Reg 8.10.2.1 (a) and (b)]**
- Loss of Control – 7,7%

2. Articulated Dump Trucks

- Vehicle to Person – 14,8%
- Vehicle to Vehicle – 0,4% **[Reg 8.10.2.1 (a) and (b)]**
- Loss of Control – 20,8%

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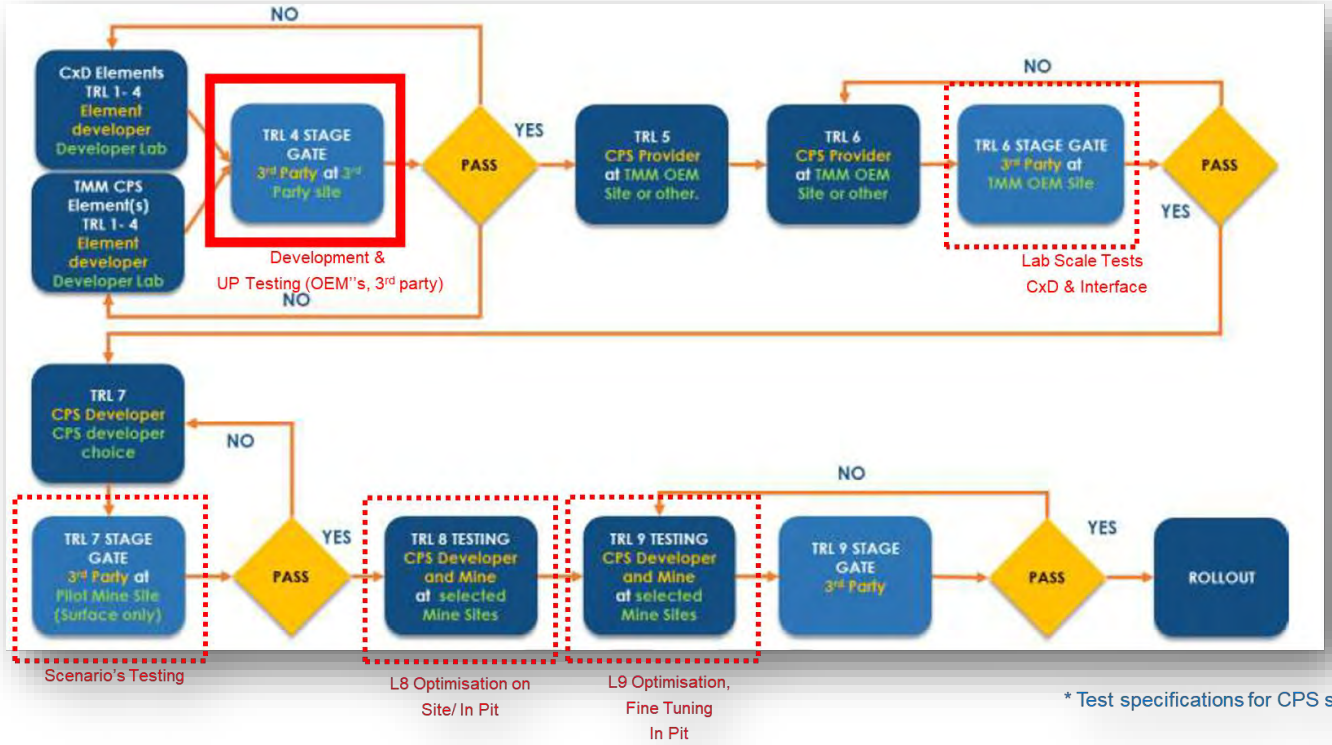
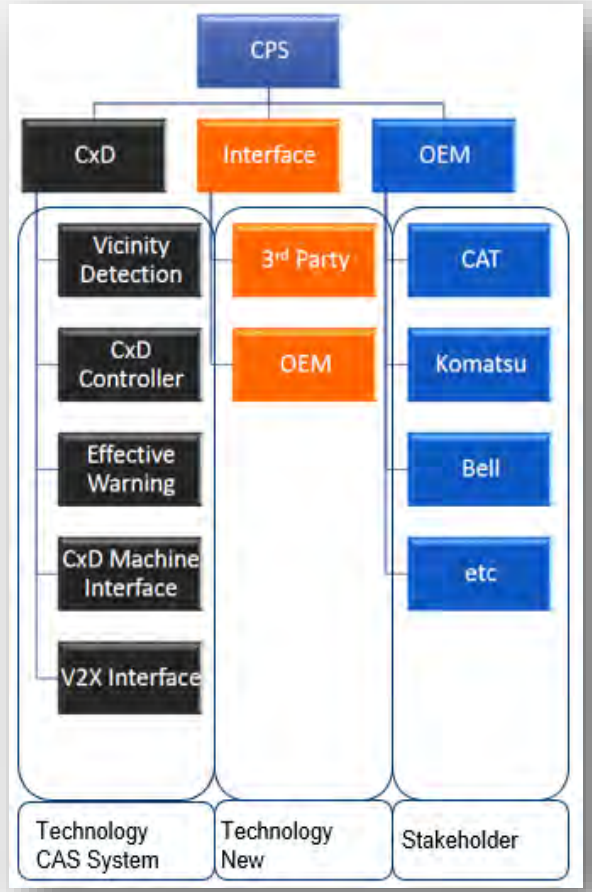
Developing L9 Technology Platform, Stage Gate Process

- **CxD – Collision Prevention System Device / Wabtec Gen 3**
- **Interface - Retarding System Devices / CAT777,789,793, Liebherr T264**

[Not to be confused with ISO21815 -2 interface protocol, which relates to communication between CxD and Interface]

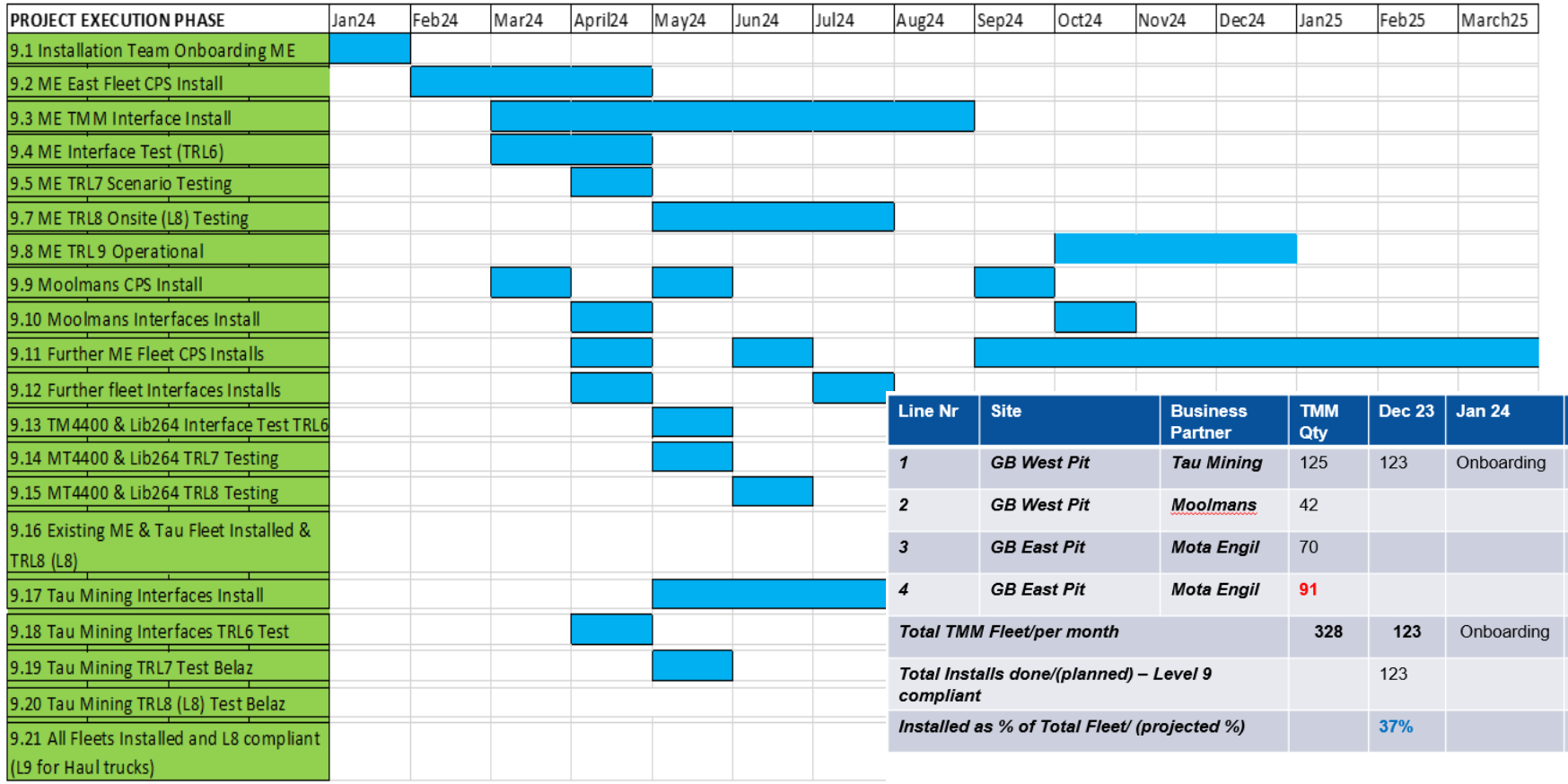


* Test specifications for CPS systems Rev4 -12/2023



Minerals Council Section 21 Framework guideline for CPS

CPS Implementation plan – **Present to DMPR (Regulator)**



The Plan

The Installations

Line Nr	Site	Business Partner	TMM Qty	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24	July 24	Aug2 4	Sep 24
1	*GB West Pit*	*Tau Mining*	125	123	Onboarding	2							
2	*GB West Pit*	*Moolmans*	42			10	10		5	6			5
3	*GB East Pit*	*Mota Engil*	70			10	10	10	10	10	10	10	
4	*GB East Pit*	*Mota Engil*	91			4	4	6	6	6	8	6	8
Total TMM Fleet/per month			328	123	Onboarding	26	24	16	21	22	18	16	13
Total Installs done/(planned) – Level 9 compliant				123									
Installed as % of Total Fleet/ (projected %)				37%		45%	53%	58%	64%	70%	76%	81%	85%

Monthly Project Update reports

To DMPR ←

ACTUAL INSTALLATIONS	TMM Qty	FY23	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24	July 24	Aug 24	Sep 24
Total TMM INSTALLS	328	123									
Total TMM INSTALLS (%)		37%									
Progress % [+ or -)											

Traffic Management Plan – MOSH as baseline

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Please note, anywhere you see this sign on the page it means its clickable

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Adopting Traffic Management Leading Practices

- Collaboration in a Meeting is different from owning the outcome – Get the right audience
- Who is Accountable and who is Responsible – Understand the difference (Legal appointment), Create a RACI chart (**Responsible, Accountable, Consulted and Informed)**
- Management Buy-in is easier than Operational Buy-in – Pains of **Change Management**
- Operations comes first – Safety, Production, Other priorities
- Attrition and New Heads – Revolving project team, Operational team, **Skills transfer/continuity**

- Traffic Management is a Full-Time function – Not a project with an end date
- Cost to employ dedicated resources vs outsourcing – **Commercial model (CAPEX) vs HR model (Headcount)**
- Operational Knowledge vs Theoretical Knowledge – Our mine maybe the same as another mine but we are **very different**.
- Consultants – No site are the same
- Onsite vs Remote working – Practical, Reasonable, Hands-on

- Insourced or **Outsourced Mining model** – Multiple Level of Executive/ Snr Management teams
- Divisional or Line Managers are the owners of the exercise – **GM, Mine Managers**
- Engineers make it happen – **Sec 2.13.1 & 2.13.3.1**

Visualising TMLP Infrastructure Evaluations

Gamsberg Operation

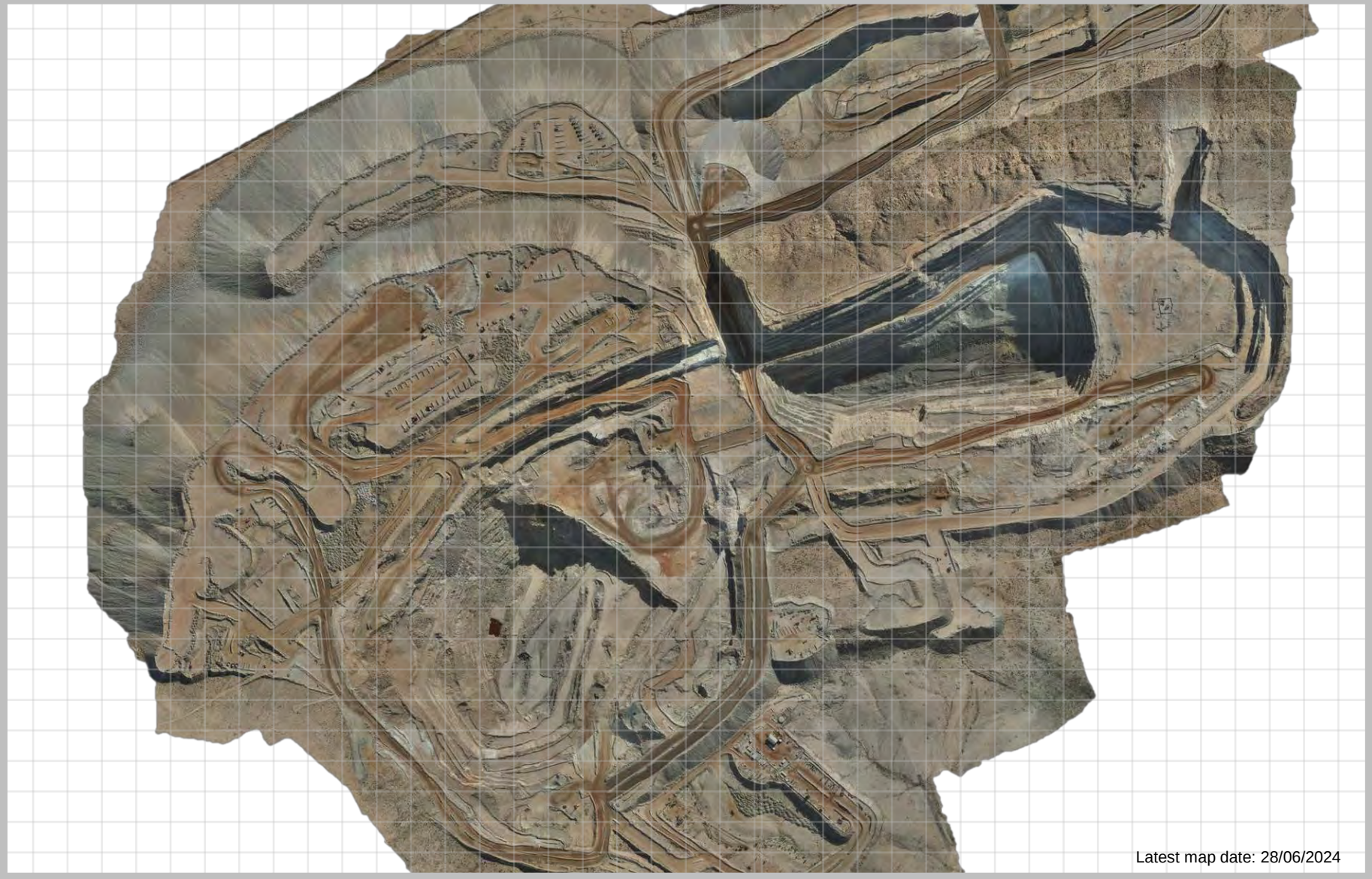
Access Visualisation

VEDANTA GAMSBERG

TFRA Input Sheet

Open Pit Areas

Conclusion



Latest map date: 28/06/2024

VEDANTA GAMSBERG – MINING AREAS – INFRASTRUCTURE

Roads and Ramps

Intersections

Brake Test Ramps and Testing Points

Parking Areas

Home

VEDANTA GAMSBERG – ROADS AND RAMPS

Legend:

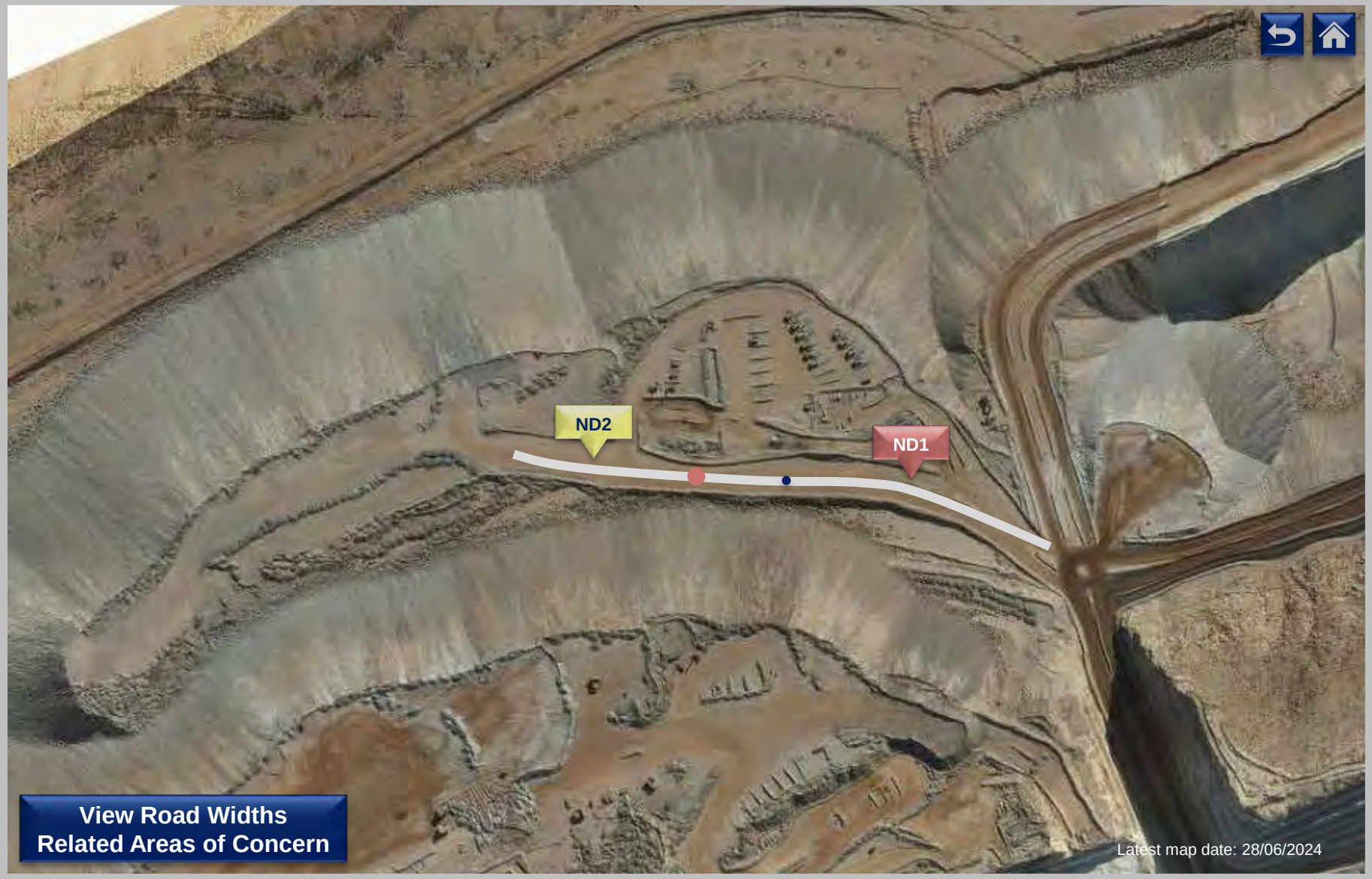
- High-Risk Area
- Low Risk Area
- Area of Concern
- Medium Risk Area
- Not Evaluated

VEDANTA GAMSBERG – NORTH DUMP ROAD

Risk Area Rating

ND1

ND2



Legend:

- High-Risk Area
- Low Risk Area
- Area of Concern
- Medium Risk Area
- Not Evaluated

EVALUATION CARD: NORTH DUMP ROAD – ND1

Current Score	60.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
ND1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	NIP	PCC
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
16	MOSH TMLP - 9.6.3	Curves: Sharp horizontal curves at or near the crest of a ramp must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

EVALUATION CARD: NORTH DUMP ROAD – ND2

Current Score	74.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
ND2

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	NIP	PCC
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	IP	
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	NIP	PCC
16	MOSH TMLP - 9.6.3	Curves: Sharp horizontal curves at or near the crest of a ramp must be avoided.	NIP	PCC
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	NIP	PCC

Road Widths Related Areas of Concern: North Dump Road

Road Segment of Concern	Minimum Allowable Width (MOSH) [m]	Narrowest Segment Width [m]	Segment Width Status	% Compliant	% Compliance Class
North Dump Road Segment ND2	30,17	24	Non-Compliant (>10%)	80%	70% - 80%

Description of Areas of Concern Terms
% Compliant is the percentage ratio between the actual width and the width recommended by the TMLP element principles. The lower the percent compliance, the higher the risk in place. A non-compliant status of 10% is equivalent to a compliance status of 90%.

VEDANTA GAMSBERG – NORTH ACCESS RAMP

Risk Area Rating

- N1
- N2
- N3
- N4
- N5
- N6

Legend:

- High-Risk Area
- Low Risk Area
- Medium Risk Area
- Not Evaluated

EVALUATION CARD: NORTH ACCESS RAMP – N1

Current Score	96.00%
Date of Evaluation	28/06/2025

ROAD SEGMENT
N1

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
8	MOSH TMLP - 9.5.1.1	Inclination: The following ramp angles are the standards for the Leading Practice. • Permanent production ramps (rigid frame trucks) 8% to 10% • Production ramps (ADT's only) 8% to 12% • Temporary access ramps (dozers, HDVs and LDVs only) up to 14%	IP	
9	MOSH TMLP - 9.5.1.2	Inclination: Ramps should be built with a constant inclination as variation in grade detrimentally affects truck production.	IP	
10	MOSH TMLP - 9.5.1.3	Inclination: Ramp construction materials must be the same as for haul roads.	IP	
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	IP	

EVALUATION CARD: NORTH ACCESS RAMP – N2

Current Score	76.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
N2

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
8	MOSH TMLP - 9.5.1.1	Inclination: The following ramp angles are the standards for the Leading Practice. • Permanent production ramps (rigid frame trucks) 8% to 10% • Production ramps (ADT's only) 8% to 12% • Temporary access ramps (dozers, HDVs and LDVs only) up to 14%	IP	
9	MOSH TMLP - 9.5.1.2	Inclination: Ramps should be built with a constant inclination as variation in grade detrimentally affects truck production.	IP	
10	MOSH TMLP - 9.5.1.3	Inclination: Ramp construction materials must be the same as for haul roads.	IP	
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	IP	

EVALUATION CARD: NORTH ACCESS RAMP – N3

Current Score	75.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
N3

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
8	MOSH TMLP - 9.5.1.1	Inclination: The following ramp angles are the standards for the Leading Practice. • Permanent production ramps (rigid frame trucks) 8% to 10% • Production ramps (ADT's only) 8% to 12% • Temporary access ramps (dozers, HDVs and LDVs only) up to 14%	IP	
9	MOSH TMLP - 9.5.1.2	Inclination: Ramps should be built with a constant inclination as variation in grade detrimentally affects truck production.	IP	
10	MOSH TMLP - 9.5.1.3	Inclination: Ramp construction materials must be the same as for haul roads.	IP	
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC

EVALUATION CARD: NORTH ACCESS RAMP – N4

Current Score	83.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
N4

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
8	MOSH TMLP - 9.5.1.1	Inclination: The following ramp angles are the standards for the Leading Practice. • Permanent production ramps (rigid frame trucks) 8% to 10% • Production ramps (ADT's only) 8% to 12% • Temporary access ramps (dozers, HDVs and LDVs only) up to 14%	IP	
9	MOSH TMLP - 9.5.1.2	Inclination: Ramps should be built with a constant inclination as variation in grade detrimentally affects truck production.	IP	
10	MOSH TMLP - 9.5.1.3	Inclination: Ramp construction materials must be the same as for haul roads.	IP	
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
15	MOSH TMLP - 9.6.2	Curves: Curves on ramps for strip mines are not permitted.	IP	
16	MOSH TMLP - 9.6.3	Curves: Sharp horizontal curves at or near the crest of a ramp must be avoided.	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	IP	

EVALUATION CARD: NORTH ACCESS RAMP – N5

Current Score	67.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
N5

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	NIP	PCC
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
8	MOSH TMLP - 9.5.1.1	Inclination: The following ramp angles are the standards for the Leading Practice. • Permanent production ramps (rigid frame trucks) 8% to 10% • Production ramps (ADT's only) 8% to 12% • Temporary access ramps (dozers, HDVs and LDVs only) up to 14%	NIP	PCC
9	MOSH TMLP - 9.5.1.2	Inclination: Ramps should be built with a constant inclination as variation in grade detrimentally affects truck production.	NIP	PCC
10	MOSH TMLP - 9.5.1.3	Inclination: Ramp construction materials must be the same as for haul roads.	IP	
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
15	MOSH TMLP - 9.6.2	Curves: Curves on ramps for strip mines are not permitted.	IP	
16	MOSH TMLP - 9.6.3	Curves: Sharp horizontal curves at or near the crest of a ramp must be avoided.	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC

EVALUATION CARD: NORTH ACCESS RAMP – N6

Current Score	65.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
N6

Nr	Source of Control	Control	Status	Plan
15	MOSH TMLP - 9.6.2	Curves: Curves on ramps for strip mines are not permitted.	IP	
16	MOSH TMLP - 9.6.3	Curves: Sharp horizontal curves at or near the crest of a ramp must be avoided.	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	NIP	

EVALUATION CARD: NORTH ACCESS RAMP – N6

Current Score	65.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
N6

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	NIP	CNC
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	NIP	PCC
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
8	MOSH TMLP - 9.5.1.1	Inclination: The following ramp angles are the standards for the Leading Practice. • Permanent production ramps (rigid frame trucks) 8% to 10% • Production ramps (ADT's only) 8% to 12% • Temporary access ramps (dozers, HDVs and LDVs only) up to 14%	NIP	PCC
9	MOSH TMLP - 9.5.1.2	Inclination: Ramps should be built with a constant inclination as variation in grade detrimentally affects truck production.	NIP	PCC
10	MOSH TMLP - 9.5.1.3	Inclination: Ramp construction materials must be the same as for haul roads.	IP	
11	MOSH TMLP - 9.5.2.1	Entry and exit transition: Entry to ramps (dip) from the horizontal must have a gradual transition to reduce dynamic loading. Similarly the exit from a ramp (crest) to horizontal must be gradual enough to ensure line of sight over the horizon.	IP	
12	MOSH TMLP - 9.5.2.2	The rate of transition over this distance(dips and crests) must be constant.	IP	
13	MOSH TMLP - 9.5.2.3	The following transition distances are the standard for the Leading Practice: Dip transition: 20m for 8% grade, and 30m for 10% grade. Crest transition: 50m for 8% grade, and 70m for 10% grade.	IP	
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	

VEDANTA GAMSBERG – STOCKPILE ROAD

Risk Area Rating

SPR

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

EVALUATION CARD: STOCKPILE ROAD – SPR

Current Score	72.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
SPR

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	NIP	PCC
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC

VEDANTA GAMSBERG – V CUT ROAD

Risk Area Rating

- V1
- V2

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

EVALUATION CARD: V CUT ROAD – V1

Current Score	52.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
V1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	NIP	CNC
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	CNC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
16	MOSH TMLP - 9.6.3	Curves: Sharp horizontal curves at or near the crest of a ramp must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

EVALUATION CARD: V CUT ROAD – V2

Current Score	77.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
V2

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	NIP	CNC
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
16	MOSH TMLP - 9.6.3	Curves: Sharp horizontal curves at or near the crest of a ramp must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	IP	
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

VEDANTA GAMSBERG – SOUTH ORE ROAD

Risk Area Rating

- S1
- S2
- S3
- S4

Legend:

- High-Risk Area
- Low Risk Area
- Area of Concern
- Medium Risk Area
- Not Evaluated

EVALUATION CARD: SOUTH ORE ROAD – S1

Current Score	68.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
S1

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	NIP	PCC
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

EVALUATION CARD: SOUTH ORE ROAD – S2

Current Score	66.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
S2

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	NIP	PCC
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	IP	
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

EVALUATION CARD: SOUTH ORE ROAD – S3

Current Score	84.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
S3

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	IP	
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

EVALUATION CARD: SOUTH ORE ROAD – S4

Current Score	89.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
S4

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	IP	
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

Road Widths Related Areas of Concern: South Ore Road

Road Segment of Concern	Minimum Allowable Width (MOSH) [m]	Narrowest Segment Width [m]	Segment Width Status	% Compliant	% Compliance Class
South Ore Road Segment S1	27,37	25	Non-Compliant (<10%)	91%	>90%

Description of Areas of Concern Terms
% Compliant is the percentage ratio between the actual width and the width recommended by the TMLP element principles. The lower the percent compliance, the higher the risk in place. A non-compliant status of 10% is equivalent to a compliance status of 90%.

VEDANTA GAMSBERG – EAST PIT ROAD A

Risk Area Rating

- EA1
- EA2
- EA3
- EA4
- EA5

Legend:

- High-Risk Area
- Low Risk Area
- Area of Concern
- Medium Risk Area
- Not Evaluated

EVALUATION CARD: EAST PIT ROAD A – EA1

Current Score	58.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EA1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	NIP	CNC
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	CNC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	CNC
8	MOSH TMLP - 9.5.1.1	Inclination: The following ramp angles are the standards for the Leading Practice. • Permanent production ramps (rigid frame trucks) 8% to 10% • Production ramps (ADT's only) 8% to 12% • Temporary access ramps (dozers, HDVs and LDVs only) up to 14%	NIP	PCC
9	MOSH TMLP - 9.5.1.2	Inclination: Ramps should be built with a constant inclination as variation in grade detrimentally affects truck production.	NIP	PCC
10	MOSH TMLP - 9.5.1.3	Inclination: Ramp construction materials must be the same as for haul roads.	IP	
12	MOSH TMLP - 9.5.2.2	The rate of transition over this distance(dips and crests) must be constant.	NIP	CNC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
15	MOSH TMLP - 9.6.2	Curves: Curves on ramps for strip mines are not permitted.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	

EVALUATION CARD: EAST PIT ROAD A – EA2

Current Score	79.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EA2

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	CNC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	CNC
8	MOSH TMLP - 9.5.1.1	Inclination: The following ramp angles are the standards for the Leading Practice. • Permanent production ramps (rigid frame trucks) 8% to 10% • Production ramps (ADT's only) 8% to 12% • Temporary access ramps (dozers, HDVs and LDVs only) up to 14%	IP	
9	MOSH TMLP - 9.5.1.2	Inclination: Ramps should be built with a constant inclination as variation in grade detrimentally affects truck production.	IP	
10	MOSH TMLP - 9.5.1.3	Inclination: Ramp construction materials must be the same as for haul roads.	IP	
12	MOSH TMLP - 9.5.2.2	The rate of transition over this distance(dips and crests) must be constant.	NIP	CNC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
15	MOSH TMLP - 9.6.2	Curves: Curves on ramps for strip mines are not permitted.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	

EVALUATION CARD: EAST PIT ROAD A – EA3

Current Score	76.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EA3

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	CNC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	CNC
8	MOSH TMLP - 9.5.1.1	Inclination: The following ramp angles are the standards for the Leading Practice. • Permanent production ramps (rigid frame trucks) 8% to 10% • Production ramps (ADT's only) 8% to 12% • Temporary access ramps (dozers, HDVs and LDVs only) up to 14%	IP	
9	MOSH TMLP - 9.5.1.2	Inclination: Ramps should be built with a constant inclination as variation in grade detrimentally affects truck production.	IP	
10	MOSH TMLP - 9.5.1.3	Inclination: Ramp construction materials must be the same as for haul roads.	IP	
12	MOSH TMLP - 9.5.2.2	The rate of transition over this distance(dips and crests) must be constant.	NIP	CNC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
15	MOSH TMLP - 9.6.2	Curves: Curves on ramps for strip mines are not permitted.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	

EVALUATION CARD: EAST PIT ROAD A – EA4

Current Score	57.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EA4

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	CNC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	CNC
10	MOSH TMLP - 9.5.1.3	Inclination: Ramp construction materials must be the same as for haul roads.	IP	
12	MOSH TMLP - 9.5.2.2	The rate of transition over this distance(dips and crests) must be constant.	NIP	CNC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	NIP	CNC
15	MOSH TMLP - 9.6.2	Curves: Curves on ramps for strip mines are not permitted.	NIP	PCC
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	CNC
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

EVALUATION CARD: EAST PIT ROAD A – EA5

Current Score	64.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EA5

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	CNC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	CNC
11	MOSH TMLP - 9.5.2.1	Entry and exit transition: Entry to ramps (dip) from the horizontal must have a gradual transition to reduce dynamic loading. Similarly the exit from a ramp (crest) to horizontal must be gradual enough to ensure line of sight over the horizon.	IP	
12	MOSH TMLP - 9.5.2.2	The rate of transition over this distance(dips and crests) must be constant.	NIP	CNC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	NIP	PCC
15	MOSH TMLP - 9.6.2	Curves: Curves on ramps for strip mines are not permitted.	NIP	PCC
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	NIP	PCC

Road Widths Related Areas of Concern: East Pit Road A

Road Segment of Concern	Minimum Allowable Width (MOSH) [m]	Narrowest Segment Width [m]	Segment Width Status	% Compliant	% Compliance Class
East Pit Road A Segment EA1	27,41	13	Non-Compliant (>10%)	47%	<50%
East Pit Road A Segment EA2	27,41	13	Non-Compliant (>10%)	47%	<50%
East Pit Road A Segment EA5	27,41	15	Non-Compliant (>10%)	55%	50% - 60%
East Pit Road A Segment EA4	27,41	16	Non-Compliant (>10%)	58%	50% - 60%
East Pit Road A Segment EA3	27,41	18	Non-Compliant (>10%)	66%	60% - 70%

Description of Areas of Concern Terms
% Compliant is the percentage ratio between the actual width and the width recommended by the TMLP element principles. The lower the percent compliance, the higher the risk in place. A non-compliant status of 10% is equivalent to a compliance status of 90%.

VEDANTA GAMSBERG – EAST PIT ROAD B

Risk Area Rating

- EB1
- EB2
- EB3
- EB4

Legend:

- High-Risk Area
- Low Risk Area
- Area of Concern
- Medium Risk Area
- Not Evaluated

EVALUATION CARD: EAST PIT ROAD B – EB1

Current Score	76.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EB1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	NIP	PCC
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC

EVALUATION CARD: EAST PIT ROAD B – EB2

Current Score	92.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EB2

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	

EVALUATION CARD: EAST PIT ROAD B – EB2

Current Score	
Date of Evaluation	28/06/2024

ROAD SEGMENT
EB3

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC

EVALUATION CARD: EAST PIT ROAD B – EB2

Current Score	54.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EB4

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC

Road Widths Related Areas of Concern: East Pit Road B

Road Segment of Concern	Minimum Allowable Width (MOSH) [m]	Narrowest Segment Width [m]	Segment Width Status	% Compliant	% Compliance Class
East Pit Road B Segment EB3	30,17	17	Non-Compliant (>10%)	56%	50% - 60%
East Pit Road B Segment EB4	30,17	19	Non-Compliant (>10%)	63%	60% - 70%
East Pit Road B Segment EB2	30,17	20	Non-Compliant (>10%)	66%	60% - 70%

Description of Areas of Concern Terms
% Compliant is the percentage ratio between the actual width and the width recommended by the TMLP element principles. The lower the percent compliance, the higher the risk in place. A non-compliant status of 10% is equivalent to a compliance status of 90%.

VEDANTA GAMSBERG – EAST PIT ROAD C

Risk Area Rating

- EC1
- EC2
- EC3
- EC4
- EC5
- EC6
- EC7

Legend:

- High-Risk Area
- Low Risk Area
- Area of Concern
- Medium Risk Area
- Not Evaluated

EVALUATION CARD: EAST PIT ROAD C – EC1

Current Score	67.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EC1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	NIP	PCC
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

EVALUATION CARD: EAST PIT ROAD C – EC2

Current Score	63.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EC2

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC

EVALUATION CARD: EAST PIT ROAD C – EC3

Current Score	54.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EC3

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC

EVALUATION CARD: EAST PIT ROAD C – EC4

Current Score	57.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EC4

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC

EVALUATION CARD: EAST PIT ROAD C – EC5

Current Score	53.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EC5

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC

EVALUATION CARD: EAST PIT ROAD C – EC6

Current Score	53.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EC6

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC

EVALUATION CARD: EAST PIT ROAD C – EC7

Current Score	54.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
EC7

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC

Road Widths Related Areas of Concern: East Pit Road C

Road Segment of Concern	Minimum Allowable Width (MOSH) [m]	Narrowest Segment Width [m]	Segment Width Status	% Compliant	% Compliance Class
East Pit Road C Segment EC7	30,17	19	Non-Compliant (>10%)	63%	60% - 70%
East Pit Road C Segment EC5	30,17	20	Non-Compliant (>10%)	66%	60% - 70%
East Pit Road C Segment EC6	30,17	20	Non-Compliant (>10%)	66%	60% - 70%
East Pit Road C Segment EC3	30,17	27	Non-Compliant (>10%)	89%	80% - 90%

Description of Areas of Concern Terms
% Compliant is the percentage ratio between the actual width and the width recommended by the TMLP element principles. The lower the percent compliance, the higher the risk in place. A non-compliant status of 10% is equivalent to a compliance status of 90%.

VEDANTA GAMSBERG – WEST PIT ROAD A

Risk Area Rating

- WA1
- WA2
- WA3
- WA4
- WA5

Legend:

- High-Risk Area
- Low Risk Area
- Area of Concern
- Medium Risk Area
- Not Evaluated

EVALUATION CARD: WEST PIT ROAD A – WA1

Current Score	73.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WA1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	NIP	PCC
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

EVALUATION CARD: WEST PIT ROAD A – WA2

Current Score	82.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WA2

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	NIP	CNC
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

EVALUATION CARD: WEST PIT ROAD A – WA3

Current Score	91.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WA3

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	

EVALUATION CARD: WEST PIT ROAD A – WA4

Current Score	82.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WA4

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	

EVALUATION CARD: WEST PIT ROAD A – WA5

Current Score	89.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WA5

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	IP	
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC

Road Widths Related Areas of Concern: West Pit Road A

Road Segment of Concern	Minimum Allowable Width (MOSH) [m]	Narrowest Segment Width [m]	Segment Width Status	% Compliant	% Compliance Class
West Pit Road A Segment WA2	27,37	18	Non-Compliant (>10%)	66%	60% - 70%
West Pit Road A Segment WA1	27,37	21	Non-Compliant (>10%)	77%	70% - 80%
West Pit Road A Segment WA3	27,37	21	Non-Compliant (>10%)	77%	70% - 80%
West Pit Road A Segment WA4	27,37	21	Non-Compliant (>10%)	77%	70% - 80%

Description of Areas of Concern Terms
% Compliant is the percentage ratio between the actual width and the width recommended by the TMLP element principles. The lower the percent compliance, the higher the risk in place. A non-compliant status of 10% is equivalent to a compliance status of 90%.

VEDANTA GAMSBERG – WEST PIT ROAD B

Risk Area Rating

- WB1
- WB2
- WB3
- WB4
- WB5
- WB6

Legend:

- High-Risk Area
- Low Risk Area
- Area of Concern
- Medium Risk Area
- Not Evaluated

EVALUATION CARD: WEST PIT ROAD B – WB1

Current Score	74.00%
Date of Evaluation	28/06/2025

ROAD SEGMENT
WB1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	IP	
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	NIP	PCC
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	IP	
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

EVALUATION CARD: WEST PIT ROAD B – WB2

Current Score	86.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WB2

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	IP	
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

EVALUATION CARD: WEST PIT ROAD B – WB3

Current Score	68.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WB3

Nr	Source of Control	Control	Status	Plan
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	NIP	PCC
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	NIP	PCC
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	IP	
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	IP	

EVALUATION CARD: WEST PIT ROAD B – WB4

Current Score	67,00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WB4

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	N/A
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	N/A
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	N/A
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	N/A
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	N/A
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC

EVALUATION CARD: WEST PIT ROAD B – WB5

Current Score	73.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WB5

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC

EVALUATION CARD: WEST PIT ROAD B – WB6

Current Score	75.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WB6

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	IP	
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	IP	

Road Widths Related Areas of Concern: West Pit Road B

Road Segment of Concern	Minimum Allowable Width (MOSH) [m]	Narrowest Segment Width [m]	Segment Width Status	% Compliant	% Compliance Class
West Pit Road B Segment WB4	22,73	12	Non-Compliant (>10%)	53%	50% - 60%
West Pit Road B Segment WB3	22,73	13	Non-Compliant (>10%)	57%	50% - 60%

Description of Areas of Concern Terms
% Compliant is the percentage ratio between the actual width and the width recommended by the TMLP element principles. The lower the percent compliance, the higher the risk in place. A non-compliant status of 10% is equivalent to a compliance status of 90%.

VEDANTA GAMSBERG – WEST PIT ROAD C

Risk Area Rating

- WC1
- WC2
- WC3
- WC4

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated
- Area of Concern

EVALUATION CARD: WEST PIT ROAD C – WC1

Current Score	46.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WC1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	NIP	PCC
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	NIP	PCC
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	NIP	PCC
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC
22	GB Traffic Management Plan Procedure - 2.7.7	Centre Berms: Centre berms shall be constructed on sharp and blind corners where there is enough space to do so.	NIP	PCC

EVALUATION CARD: WEST PIT ROAD C – WC2

Current Score	73.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WC2

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	NIP	PCC
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC

EVALUATION CARD: WEST PIT ROAD C – WC3

Current Score	63.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WC3

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	NIP	PCC
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	NIP	PCC
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
6	MOSH TMLP - 9.2.2.2	Where centre berms are used, each side of the haul road width must meet the minimum criteria for a single directional haul road as defined in this Leading Practice (3X Widest Vehicle where left hand-drive vehicles are the largest vehicles in use)	NIP	PCC
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC

EVALUATION CARD: WEST PIT ROAD C – WC4

Current Score	72.00%
Date of Evaluation	28/06/2024

ROAD SEGMENT
WC4

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 3.3.4	Haul roads should be designed and traffic routed so that fully laden vehicles are prevented from crossing. If this is not possible, traffic from all directions should be stopped.	IP	
3	MOSH TMLP - 9.1	Dual-direction roadway width: 3.5x operating width of the largest vehicle using the road for left-hand drive vehicles.	IP	
4	MOSH TMLP - 9.2.1.1	Side berms must be: • Constructed from suitable material such as loose overburden, top soil, aggregate etc. • Shaped into a trapezoid shape with a flat top • Maintained to ensure functionality at all times – free of vegetation, loose and soft	NIP	PCC
5	MOSH TMLP - 9.2.1.3	Side berms: The berm height must be a minimum of 1m or at least 50% of the height of the tyre of the largest wheeled equipment in use. The width of the berm is determined by the height and the angle repose of the material being used. The minimum top dimension must be 50% of the height.	IP	
14	MOSH TMLP - 9.6.1, MOSH TMLP - 9.7, GB Traffic Management Plan Procedure	Curves: The radius of curves must be as large as the topography and layout permits. With a minimum radius of 100m on main haul roads and 50m for ramps, benches, loading areas, dump sites, workshops and park bays	IP	
17	MOSH TMLP - 9.6.4	Curves: Intersections near the crest of a vertical curve or a sharp horizontal curve must be avoided.	IP	
18	MOSH TMLP - 9.8.1	Demarcation: Road delineators must be positioned on both sides of the road at intervals of 50m on straight roads and 25m apart around bends and crossings / intersections starting at least 100m from such crossings / intersections.	NIP	PCC
19	MOSH TMLP - 9.8.2	Demarcation: The current best practice is to have delineators that are protruding so that the operator of the largest vehicle can easily observe the delineator. The delineators must be secured to allow it to remain in position despite extreme weather conditions.	NIP	PCC
20	MOSH TMLP - 9.8.2	Delineators must have means to ensure visibility during day and night where appropriate, such as white coloured, reflective tape, solar powered led lights etc.	NIP	PCC
21	GB Traffic Management Plan Procedure - 2.2.3	Centre Berms: Haul roads will feature centre berms to separate them when there is an intersection or where the roadway changes from a straight road, into a curved road. The haul road will be separated by an internal island berm for 100m before and after the curve or intersection.	NIP	PCC

Road Widths Related Areas of Concern: West Pit Road C

Road Segment of Concern	Minimum Allowable Width (MOSH) [m]	Narrowest Segment Width [m]	Segment Width Status	% Compliant	% Compliance Class
West Pit Road C Segment WC1	30,17	12	Non-Compliant (>10%)	40%	<50%
West Pit Road C Segment WC4	30,17	17	Non-Compliant (>10%)	56%	50% - 60%
West Pit Road C Segment WC3	30,17	20	Non-Compliant (>10%)	66%	60% - 70%
West Pit Road C Segment WC2	30,17	25	Non-Compliant (>10%)	83%	80% - 90%

Description of Areas of Concern Terms
% Compliant is the percentage ratio between the actual width and the width recommended by the TMLP element principles. The lower the percent compliance, the higher the risk in place. A non-compliant status of 10% is equivalent to a compliance status of 90%.

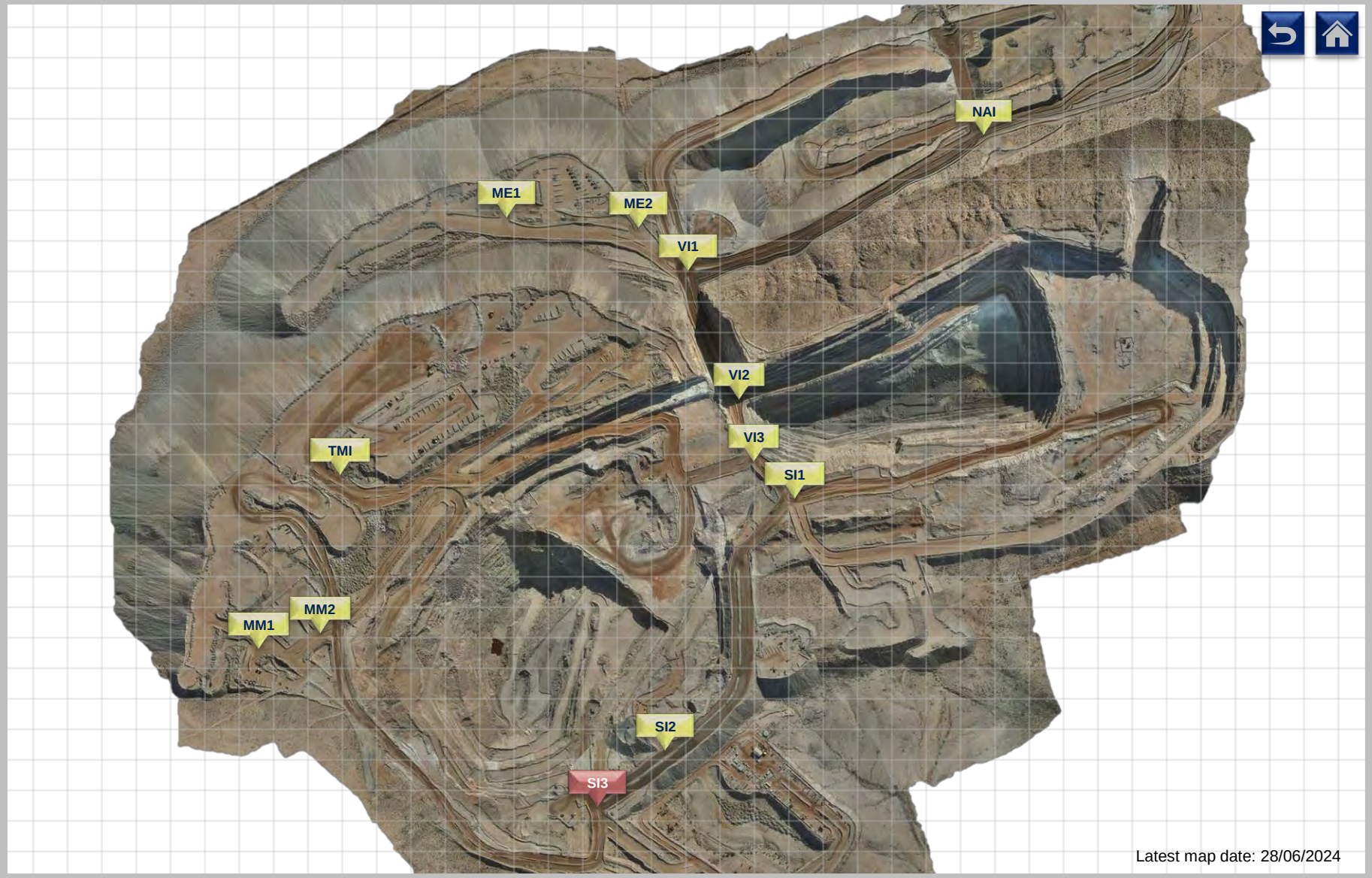
VEDANTA GAMSBERG – INTERSECTIONS

Risk Area Rating

- North Access Ramp Intersection (NAI)
- V Cut Intersection 1 (VI1)
- V Cut Intersection 2 - VI2
- V Cut Intersection 3 – VI3
- South Ore Road Intersection 1 (SI1)
- South Ore Road Intersection 2 (SI2)
- South Ore Road Intersection 3 (SI3)
- Moolmans Parking Intersection 1 (MM1)
- Moolmans Parking Intersection 2 (MM2)
- Tau Mining Parking Intersection (TMI)
- Mota Engil Parking Intersection 1 (ME1)
- Mota Engil Parking Intersection 2 (ME2)

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

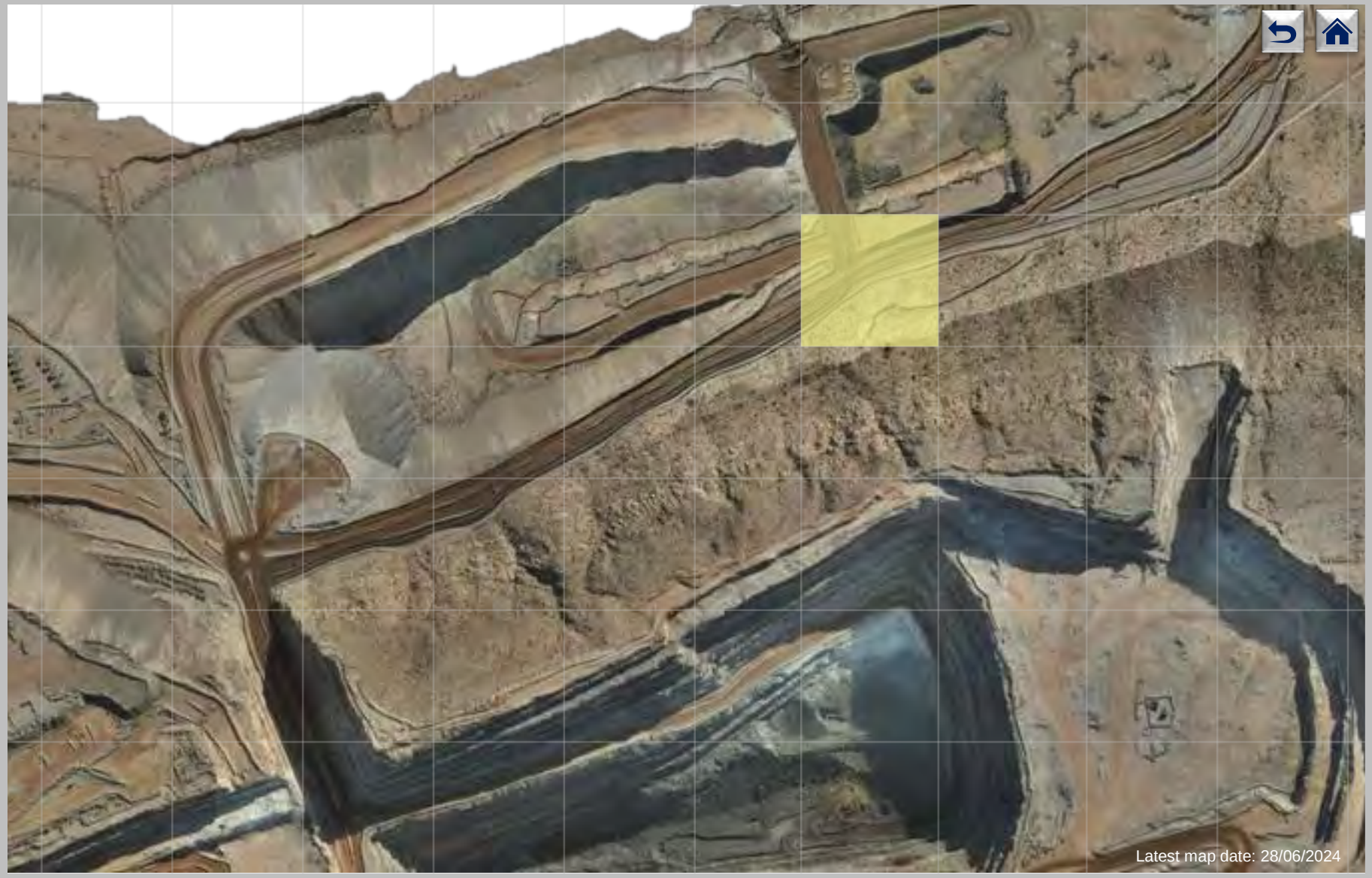


Latest map date: 28/06/2024

VEDANTA GAMSBERG – INTERSECTION

Intersection NAI

Current Score:	90,00%
Date of Evaluation:	28/06/2024



Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

NAI Evaluation Card

VEDANTA GAMSBERG - INTERSECTION

EVALUATION CARD: INTERSECTIONS

Current Score	90,00%
Date of Evaluation	28/06/2024

Intersection
NAI

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 9.10.2	Haul road intersections must have centre berms.	IP	
2	MOSH TMLP - 9.10.3	The height of centre berms must be decreased (tapered) to 1m at intersections to ensure visibility from light vehicles.	IP	
3	MOSH TMLP - 9.10.4	All intersections must be at right angles to facilitate visibility. Intersections utilising a yield or right of way must not be used.	IP	
4	MOSH TMLP - 9.10.5	T-junctions must be used for all intersections.	IP	
5	MOSH TMLP - 9.10.6	Multiple intersections must be spaced at least 100m apart.	NIP	PCC
6	MOSH TMLP - 9.10.8	No intersections or stops are allowed on an incline.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

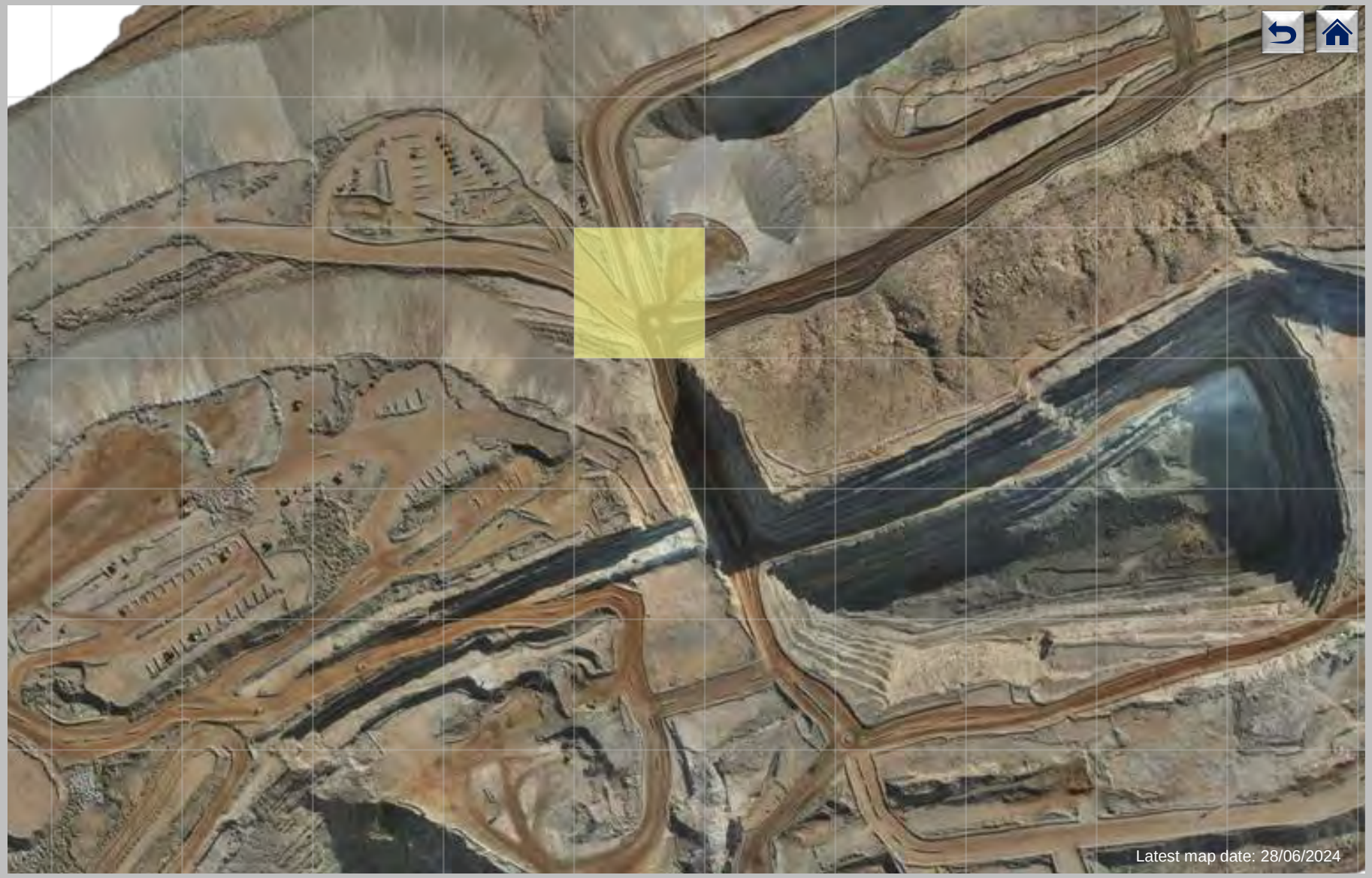
Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – INTERSECTION

Intersection VI1

Current Score:	78,00%
Date of Evaluation:	28/06/2024



Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

VI1 Evaluation Card

VEDANTA GAMSBERG - INTERSECTION

EVALUATION CARD: INTERSECTIONS

Current Score	78,00%
Date of Evaluation	28/06/2024

Intersection
VI1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 9.10.2	Haul road intersections must have centre berms.	IP	
2	MOSH TMLP - 9.10.3	The height of centre berms must be decreased (tapered) to 1m at intersections to ensure visibility from light vehicles.	IP	
3	MOSH TMLP - 9.10.4	All intersections must be at right angles to facilitate visibility. Intersections utilising a yield or right of way must not be used.	NIP	PCC
4	MOSH TMLP - 9.10.5	T-junctions must be used for all intersections.	NIP	CNC
5	MOSH TMLP - 9.10.6	Multiple intersections must be spaced at least 100m apart.	IP	
6	MOSH TMLP - 9.10.8	No intersections or stops are allowed on an incline.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – INTERSECTION

Intersection VI2

Current Score: 90,00%
Date of Evaluation: 29/06/2025

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

VI2 Evaluation Card

VEDANTA GAMSBERG - INTERSECTION

EVALUATION CARD: INTERSECTIONS

Current Score	90,00%
Date of Evaluation	29/06/2025

Intersection
VI2

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 9.10.2	Haul road intersections must have centre berms.	IP	
2	MOSH TMLP - 9.10.3	The height of centre berms must be decreased (tapered) to 1m at intersections to ensure visibility from light vehicles.	NIP	PCC
3	MOSH TMLP - 9.10.4	All intersections must be at right angles to facilitate visibility. Intersections utilising a yield or right of way must not be used.	IP	
4	MOSH TMLP - 9.10.5	T-junctions must be used for all intersections.	IP	
5	MOSH TMLP - 9.10.6	Multiple intersections must be spaced at least 100m apart.	IP	
6	MOSH TMLP - 9.10.8	No intersections or stops are allowed on an incline.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – INTERSECTION

Intersection VI3

Current Score:	80,00%
Date of Evaluation:	28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

VI3 Evaluation Card

VEDANTA GAMSBERG - INTERSECTION

EVALUATION CARD: INTERSECTIONS

Current Score	80,00%
Date of Evaluation	28/06/2024

Intersection
VI3

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 9.10.2	Haul road intersections must have centre berms.	NIP	PCC
2	MOSH TMLP - 9.10.3	The height of centre berms must be decreased (tapered) to 1m at intersections to ensure visibility from light vehicles.	NIP	PCC
3	MOSH TMLP - 9.10.4	All intersections must be at right angles to facilitate visibility. Intersections utilising a yield or right of way must not be used.	IP	
4	MOSH TMLP - 9.10.5	T-junctions must be used for all intersections.	IP	
5	MOSH TMLP - 9.10.6	Multiple intersections must be spaced at least 100m apart.	IP	
6	MOSH TMLP - 9.10.8	No intersections or stops are allowed on an incline.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – INTERSECTION

Intersection SI1

Current Score: 70,00%
Date of Evaluation: 28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

SI1 Evaluation Card

VEDANTA GAMSBERG - INTERSECTION

EVALUATION CARD: INTERSECTIONS

Current Score	70,00%
Date of Evaluation	28/06/2024

Intersection
SI1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 9.10.2	Haul road intersections must have centre berms.	IP	
2	MOSH TMLP - 9.10.3	The height of centre berms must be decreased (tapered) to 1m at intersections to ensure visibility from light vehicles.	NIP	PCC
3	MOSH TMLP - 9.10.4	All intersections must be at right angles to facilitate visibility. Intersections utilising a yield or right of way must not be used.	NIP	PCC
4	MOSH TMLP - 9.10.5	T-junctions must be used for all intersections.	NIP	PCC
5	MOSH TMLP - 9.10.6	Multiple intersections must be spaced at least 100m apart.	IP	
6	MOSH TMLP - 9.10.8	No intersections or stops are allowed on an incline.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – INTERSECTION

Intersection SI2

Current Score: 90,00%
Date of Evaluation: 28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

SI2 Evaluation Card

VEDANTA GAMSBERG - INTERSECTION

EVALUATION CARD: INTERSECTIONS

Current Score	90,00%
Date of Evaluation	28/06/2024

Intersection
SI2

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 9.10.2	Haul road intersections must have centre berms.	IP	
2	MOSH TMLP - 9.10.3	The height of centre berms must be decreased (tapered) to 1m at intersections to ensure visibility from light vehicles.	NIP	PCC
3	MOSH TMLP - 9.10.4	All intersections must be at right angles to facilitate visibility. Intersections utilising a yield or right of way must not be used.	IP	
4	MOSH TMLP - 9.10.5	T-junctions must be used for all intersections.	IP	
5	MOSH TMLP - 9.10.6	Multiple intersections must be spaced at least 100m apart.	IP	
6	MOSH TMLP - 9.10.8	No intersections or stops are allowed on an incline.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – INTERSECTION

Intersection SI3

Current Score: 60,00%
Date of Evaluation: 28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

SI3 Evaluation Card

VEDANTA GAMSBERG - INTERSECTION

EVALUATION CARD: INTERSECTIONS

Current Score	60,00%
Date of Evaluation	28/06/2024

Intersection
SI3

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 9.10.2	Haul road intersections must have centre berms.	NIP	PCC
2	MOSH TMLP - 9.10.3	The height of centre berms must be decreased (tapered) to 1m at intersections to ensure visibility from light vehicles.	NIP	PCC
3	MOSH TMLP - 9.10.4	All intersections must be at right angles to facilitate visibility. Intersections utilising a yield or right of way must not be used.	NIP	PCC
4	MOSH TMLP - 9.10.5	T-junctions must be used for all intersections.	NIP	PCC
5	MOSH TMLP - 9.10.6	Multiple intersections must be spaced at least 100m apart.	IP	
6	MOSH TMLP - 9.10.8	No intersections or stops are allowed on an incline.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status		Plan		Score Rating			
	IP	In Place	PCC	Partially Compliant Capability		High-Risk Area		Medium Risk Area
	NIP	Not In Place	CNC	Cannot Comply		Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – INTERSECTION

Intersection MM1

Current Score:	70,00%
Date of Evaluation:	28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

MM1 Evaluation Card

VEDANTA GAMSBERG - INTERSECTION

EVALUATION CARD: INTERSECTIONS

Current Score	70,00%
Date of Evaluation	28/06/2024

Intersection
MM1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 9.10.2	Haul road intersections must have centre berms.	NIP	PCC
2	MOSH TMLP - 9.10.3	The height of centre berms must be decreased (tapered) to 1m at intersections to ensure visibility from light vehicles.	NIP	PCC
3	MOSH TMLP - 9.10.4	All intersections must be at right angles to facilitate visibility. Intersections utilising a yield or right of way must not be used.	IP	
4	MOSH TMLP - 9.10.5	T-junctions must be used for all intersections.	IP	
5	MOSH TMLP - 9.10.6	Multiple intersections must be spaced at least 100m apart.	NIP	PCC
6	MOSH TMLP - 9.10.8	No intersections or stops are allowed on an incline.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – INTERSECTION

Intersection MM2

Current Score:	70,00%
Date of Evaluation:	28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

MM2 Evaluation Card

VEDANTA GAMSBERG - INTERSECTION

EVALUATION CARD: INTERSECTIONS

Current Score	70,00%
Date of Evaluation	28/06/2024

Intersection
MM2

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 9.10.2	Haul road intersections must have centre berms.	NIP	PCC
2	MOSH TMLP - 9.10.3	The height of centre berms must be decreased (tapered) to 1m at intersections to ensure visibility from light vehicles.	NIP	PCC
3	MOSH TMLP - 9.10.4	All intersections must be at right angles to facilitate visibility. Intersections utilising a yield or right of way must not be used.	IP	
4	MOSH TMLP - 9.10.5	T-junctions must be used for all intersections.	IP	
5	MOSH TMLP - 9.10.6	Multiple intersections must be spaced at least 100m apart.	NIP	PCC
6	MOSH TMLP - 9.10.8	No intersections or stops are allowed on an incline.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – INTERSECTION

Intersection TMI

Current Score:	90,00%
Date of Evaluation:	28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

TMI Evaluation Card

VEDANTA GAMSBERG - INTERSECTION

EVALUATION CARD: INTERSECTIONS

Current Score	90,00%
Date of Evaluation	28/06/2024

Intersection
TMI

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 9.10.2	Haul road intersections must have centre berms.	IP	
2	MOSH TMLP - 9.10.3	The height of centre berms must be decreased (tapered) to 1m at intersections to ensure visibility from light vehicles.	IP	
3	MOSH TMLP - 9.10.4	All intersections must be at right angles to facilitate visibility. Intersections utilising a yield or right of way must not be used.	NIP	PCC
4	MOSH TMLP - 9.10.5	T-junctions must be used for all intersections.	IP	
5	MOSH TMLP - 9.10.6	Multiple intersections must be spaced at least 100m apart.	IP	
6	MOSH TMLP - 9.10.8	No intersections or stops are allowed on an incline.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – INTERSECTION

Intersection ME1

Current Score: 80,00%
Date of Evaluation: 28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

ME1 Evaluation Card

VEDANTA GAMSBERG - INTERSECTION

EVALUATION CARD: INTERSECTIONS

Current Score	80,00%
Date of Evaluation	28/06/2024

Intersection
ME1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 9.10.2	Haul road intersections must have centre berms.	NIP	PCC
2	MOSH TMLP - 9.10.3	The height of centre berms must be decreased (tapered) to 1m at intersections to ensure visibility from light vehicles.	NIP	PCC
3	MOSH TMLP - 9.10.4	All intersections must be at right angles to facilitate visibility. Intersections utilising a yield or right of way must not be used.	IP	
4	MOSH TMLP - 9.10.5	T-junctions must be used for all intersections.	IP	
5	MOSH TMLP - 9.10.6	Multiple intersections must be spaced at least 100m apart.	IP	
6	MOSH TMLP - 9.10.8	No intersections or stops are allowed on an incline.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – INTERSECTION

Intersection ME2

Current Score: 90,00%
Date of Evaluation: 28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

ME2 Evaluation Card

VEDANTA GAMSBERG - INTERSECTION

EVALUATION CARD: INTERSECTIONS

Current Score	90,00%
Date of Evaluation	28/06/2024

Intersection
ME2

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 9.10.2	Haul road intersections must have centre berms.	IP	
2	MOSH TMLP - 9.10.3	The height of centre berms must be decreased (tapered) to 1m at intersections to ensure visibility from light vehicles.	IP	
3	MOSH TMLP - 9.10.4	All intersections must be at right angles to facilitate visibility. Intersections utilising a yield or right of way must not be used.	NIP	PCC
4	MOSH TMLP - 9.10.5	T-junctions must be used for all intersections.	IP	
5	MOSH TMLP - 9.10.6	Multiple intersections must be spaced at least 100m apart.	IP	
6	MOSH TMLP - 9.10.8	No intersections or stops are allowed on an incline.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

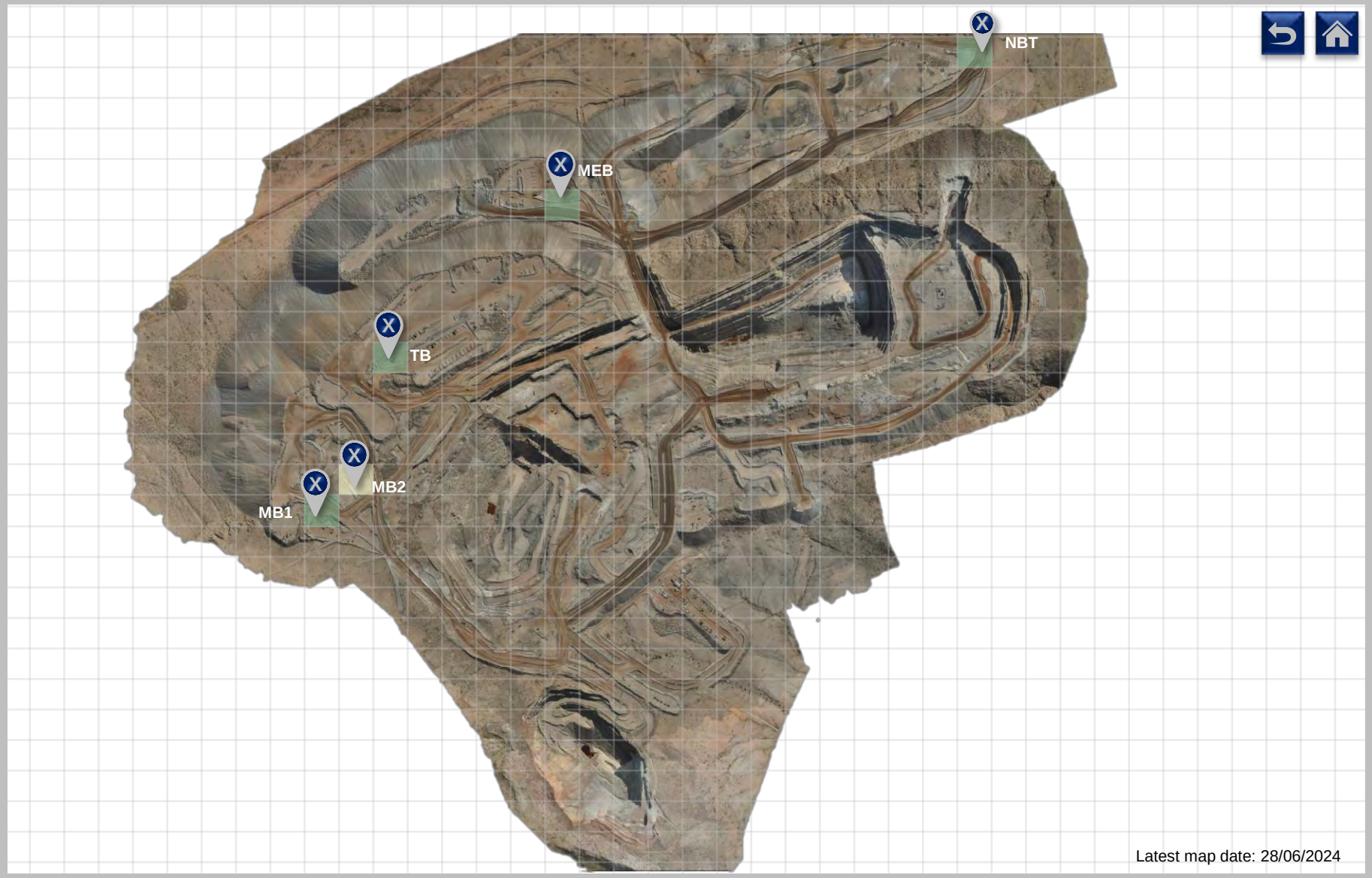
Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – BRAKE TEST RAMPS AND TESTING POINTS

Risk Area Rating

- North Access Ramp Brake Testing Ramp (NBT)
- Moolmans Parking Brake Testing Ramp 1 (MB1)
- Moolmans Parking Brake Testing Ramp 2 (MB2)
- Tau Mining Parking Brake Testing Ramp (TB)
- Mota-Engil Parking Brake Testing Ramp (MEB)



Legend:

- High-Risk Area
- Low Risk Area
- Medium Risk Area
- Not Evaluated

VEDANTA GAMSBERG – BRAKE TEST RAMPS AND TESTING POINTS

Brake Test Ramp NBT

Current Score: 92,00%
Date of Evaluation: 28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

NBT Evaluation Card

VEDANTA GAMSBERG - BRAKE TEST RAMPS AND TESTING POINTS

EVALUATION CARD: BRAKE TEST RAMPS AND TESTING POINTS

Current Score	92,00%
Date of Evaluation	28/06/2024

RAMP
NBT

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 12.1	Brake test ramps must be located at all entrances of the operational areas classified as orange or red zones or the exits of vehicle parking areas.	IP	
2	MOSH TMLP - 12.1	Test ramps must be located such that overruns do not pose any risk to the operator, other vehicles or pedestrians.	IP	
3	MOSH TMLP - 12.2.1	Brake test ramp design requirements: The brake-testing ramp must simulate the steepest angle of all ramps present at the mine.	IP	
4	MOSH TMLP - 12.2.5b	Brake test ramp design requirements: During the brake testing all TMM's accessing the brake testing ramps must be subjected to: • Brake testing procedure must be sign posted at the brake test ramp.	NIP	PCC
5	MOSH TMLP - 12.2.5c	Brake test ramp design requirements: During the brake testing all TMM's accessing the brake testing ramps must be subjected to: • The brake test ramp facility shall be positioned off-line of any mainstream traffic flow.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – BRAKE TEST RAMPS AND TESTING POINTS

Brake Test Ramp MB1

Current Score: 92,00%
Date of Evaluation: 28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

MB1 Evaluation Card

VEDANTA GAMSBERG - BRAKE TEST RAMPS AND TESTING POINTS

EVALUATION CARD: BRAKE TEST RAMPS AND TESTING POINTS

Current Score	92,00%
Date of Evaluation	28/06/2024

RAMP
MB1

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 12.1	Brake test ramps must be located at all entrances of the operational areas classified as orange or red zones or the exits of vehicle parking areas.	IP	
2	MOSH TMLP - 12.1	Test ramps must be located such that overruns do not pose any risk to the operator, other vehicles or pedestrians.	IP	
3	MOSH TMLP - 12.2.1	Brake test ramp design requirements: The brake-testing ramp must simulate the steepest angle of all ramps present at the mine.	IP	
4	MOSH TMLP - 12.2.5b	Brake test ramp design requirements: During the brake testing all TMM's accessing the brake testing ramps must be subjected to: • Brake testing procedure must be sign posted at the brake test ramp.	NIP	PCC
5	MOSH TMLP - 12.2.5c	Brake test ramp design requirements: During the brake testing all TMM's accessing the brake testing ramps must be subjected to: • The brake test ramp facility shall be positioned off-line of any mainstream traffic flow.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – BRAKE TEST RAMPS AND TESTING POINTS

Break Test Ramp MB2

Current Score: 67,00%
Date of Evaluation: 28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

MB2 Evaluation Card

VEDANTA GAMSBERG - BRAKE TEST RAMPS AND TESTING POINTS

EVALUATION CARD: BRAKE TEST RAMPS AND TESTING POINTS

Current Score	67,00%
Date of Evaluation	28/06/2024

RAMP
MB2

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 12.1	Brake test ramps must be located at all entrances of the operational areas classified as orange or red zones or the exits of vehicle parking areas.	IP	
2	MOSH TMLP - 12.1	Test ramps must be located such that overruns do not pose any risk to the operator, other vehicles or pedestrians.	NIP	PCC
3	MOSH TMLP - 12.2.1	Brake test ramp design requirements: The brake-testing ramp must simulate the steepest angle of all ramps present at the mine.	IP	
4	MOSH TMLP - 12.2.5b	Brake test ramp design requirements: During the brake testing all TMM's accessing the brake testing ramps must be subjected to: • Brake testing procedure must be sign posted at the brake test ramp.	NIP	PCC
5	MOSH TMLP - 12.2.5c	Brake test ramp design requirements: During the brake testing all TMM's accessing the brake testing ramps must be subjected to: • The brake test ramp facility shall be positioned off-line of any mainstream traffic flow.	NIP	PCC

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – BRAKE TEST RAMPS AND TESTING POINTS

Break Test Ramp TB

Current Score: 92,00%
Date of Evaluation: 28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

TB Evaluation Card

VEDANTA GAMSBERG - BRAKE TEST RAMPS AND TESTING POINTS

EVALUATION CARD: BRAKE TEST RAMPS AND TESTING POINTS

Current Score	92,00%
Date of Evaluation	28/06/2024

RAMP
TB

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 12.1	Brake test ramps must be located at all entrances of the operational areas classified as orange or red zones or the exits of vehicle parking areas.	IP	
2	MOSH TMLP - 12.1	Test ramps must be located such that overruns do not pose any risk to the operator, other vehicles or pedestrians.	IP	
3	MOSH TMLP - 12.2.1	Brake test ramp design requirements: The brake-testing ramp must simulate the steepest angle of all ramps present at the mine.	IP	
4	MOSH TMLP - 12.2.5b	Brake test ramp design requirements: During the brake testing all TMM's accessing the brake testing ramps must be subjected to: • Brake testing procedure must be sign posted at the brake test ramp.	NIP	PCC
5	MOSH TMLP - 12.2.5c	Brake test ramp design requirements: During the brake testing all TMM's accessing the brake testing ramps must be subjected to: • The brake test ramp facility shall be positioned off-line of any mainstream traffic flow.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

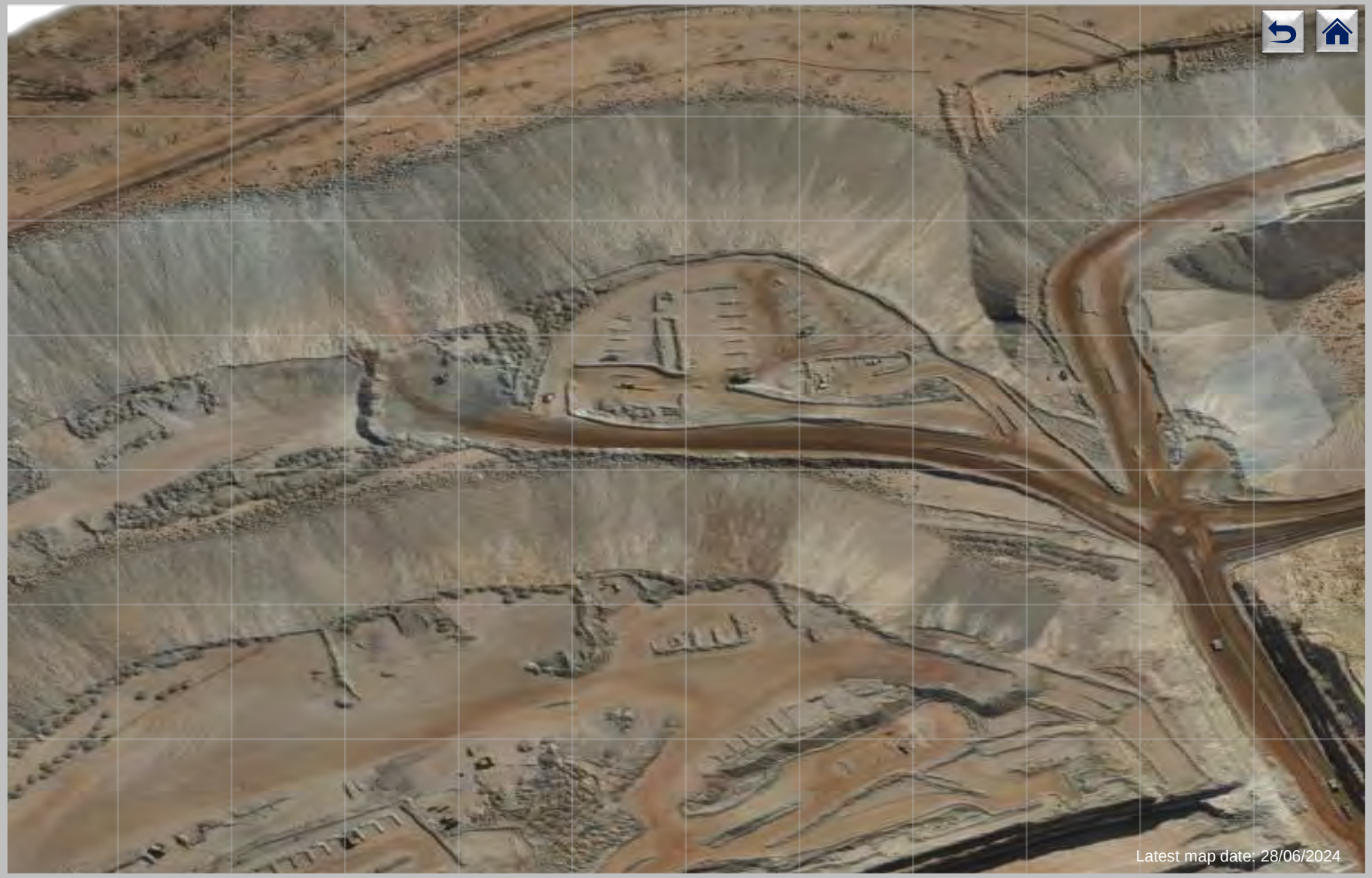
Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – BRAKE TEST RAMPS AND TESTING POINTS

Break Test Ramp MEB

Current Score: 92,00%
Date of Evaluation: 28/06/2024



Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

MEB Evaluation Card

VEDANTA GAMSBERG - BRAKE TEST RAMPS AND TESTING POINTS

EVALUATION CARD: BRAKE TEST RAMPS AND TESTING POINTS

Current Score	92,00%
Date of Evaluation	28/06/2024

RAMP
MEB

Nr	Source of Control	Control	Status	Plan
1	MOSH TMLP - 12.1	Brake test ramps must be located at all entrances of the operational areas classified as orange or red zones or the exits of vehicle parking areas.	IP	
2	MOSH TMLP - 12.1	Test ramps must be located such that overruns do not pose any risk to the operator, other vehicles or pedestrians.	IP	
3	MOSH TMLP - 12.2.1	Brake test ramp design requirements: The brake-testing ramp must simulate the steepest angle of all ramps present at the mine.	IP	
4	MOSH TMLP - 12.2.5b	Brake test ramp design requirements: During the brake testing all TMM's accessing the brake testing ramps must be subjected to: • Brake testing procedure must be sign posted at the brake test ramp.	NIP	PCC
5	MOSH TMLP - 12.2.5c	Brake test ramp design requirements: During the brake testing all TMM's accessing the brake testing ramps must be subjected to: • The brake test ramp facility shall be positioned off-line of any mainstream traffic flow.	IP	

Previous Score	N/A
Date of Evaluation	N/A

Legend:	Status	
	IP	In Place
	NIP	Not In Place

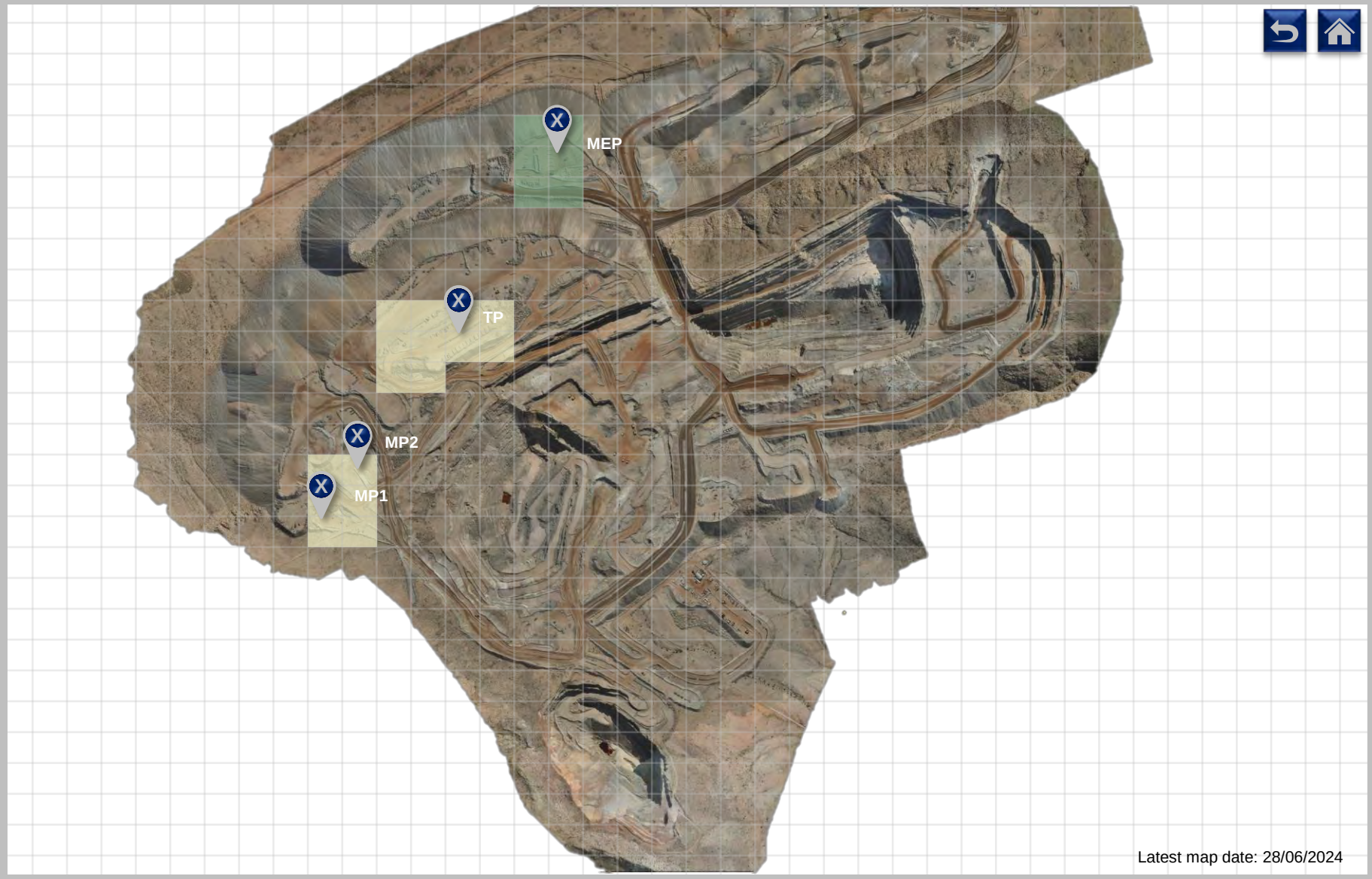
Plan	
PCC	Partially Compliant Capability
CNC	Cannot Comply

Score Rating			
	High-Risk Area		Medium Risk Area
	Low Risk Area		Not Evaluated

VEDANTA GAMSBERG – IN PIT PARKING BAYS

Risk Area Rating

- Moolmans Parking – Hard Park Area 1 (MP1)
- Moolmans Parking – Hard Park Area 2 (MP2)
- Tau Mining Parking – Hard Park Area (TP)
- Mota-Engil Parking - Hard Park Area (MEP)



Legend:

- High-Risk Area
- Low Risk Area
- Medium Risk Area
- Not Evaluated

VEDANTA GAMSBERG – IN PIT PARKING BAYS

Parking Bays MP1

Current Score: 86,00%
Date of Evaluation: 28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

MP1 Evaluation Card

VEDANTA GAMSBERG - IN PIT PARKING BAYS

EVALUATION CARD: IN PIT PARKING BAYS

Current Score	86,00%
Date of Evaluation	28/06/2024

Parking
MP1

Nr	Source of Control	Control	Status	Plan
6	MOSH TMLP - 14.2.2f	**In-pit parking**: Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Separation of vehicles – LDV, HMV and pedestrians.	IP	
7	MOSH TMLP - 14.2.2g	**In-pit parking:**Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Pedestrian access.	IP	
10	MOSH TMLP - 14.2.2j	**In-pit parking:** Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Demarcation.	IP	
11	MOSH TMLP - 14.2.2k	**In-pit parking**: Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Illumination.	NIP	PCC

Nr	Source of Control	Control	Status	Plan
14	MOSH TMLP - 14.2.2n	In-pit parking Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Fire management.	NIP	PCC
16	MOSH TMLP - 14.2.2p	In-pit parking Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Level to prevent runaways.	IP	
17	MOSH TMLP - 14.2.2q	In-pit parking Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Protective berms.	IP	

VEDANTA GAMSBERG – IN PIT PARKING BAYS

Parking Bays MP2

Current Score:	86,00%
Date of Evaluation:	28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

MP2 Evaluation Card

VEDANTA GAMSBERG - IN PIT PARKING BAYS

EVALUATION CARD: IN PIT PARKING BAYS

Current Score	86,00%
Date of Evaluation	28/06/2024

Parking
MP2

Nr	Source of Control	Control	Status	Plan
6	MOSH TMLP - 14.2.2f	**In-pit parking:** Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Separation of vehicles – LDV, HMV and pedestrians.	IP	
7	MOSH TMLP - 14.2.2g	**In-pit parking:** Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Pedestrian access.	IP	
10	MOSH TMLP - 14.2.2j	**In-pit parking:** Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Demarcation.	IP	
11	MOSH TMLP - 14.2.2k	**In-pit parking:** Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Illumination.	NIP	PCC
14	MOSH TMLP - 14.2.2n	In-pit parking Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Fire management.	NIP	PCC
16	MOSH TMLP - 14.2.2p	In-pit parking Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Level to prevent runaways.	IP	
17	MOSH TMLP - 14.2.2q	In-pit parking Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Protective berms.	IP	

VEDANTA GAMSBERG – IN PIT PARKING BAYS

Parking Bays TP

Current Score:	86,00%
Date of Evaluation:	28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

TP Evaluation Card

VEDANTA GAMSBERG - IN PIT PARKING BAYS

EVALUATION CARD: IN PIT PARKING BAYS

Current Score	86,00%
Date of Evaluation	28/06/2024

Parking
TP

Nr	Source of Control	Control	Status	Plan
6	MOSH TMLP - 14.2.2f	**In-pit parking:** Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Separation of vehicles – LDV, HMV and pedestrians.	IP	
7	MOSH TMLP - 14.2.2g	**In-pit parking:** Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Pedestrian access.	IP	
10	MOSH TMLP - 14.2.2j	**In-pit parking:** Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Demarcation.	IP	
11	MOSH TMLP - 14.2.2k	**In-pit parking:** Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Illumination.	NIP	PCC

Nr	Source of Control	Control	Status	Plan
14	MOSH TMLP - 14.2.2n	In-pit parking Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Fire management.	NIP	PCC
16	MOSH TMLP - 14.2.2p	In-pit parking Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Level to prevent runaways.	IP	
17	MOSH TMLP - 14.2.2q	In-pit parking Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Protective berms.	IP	

VEDANTA GAMSBERG – IN PIT PARKING BAYS

Parking Bays MEP

Current Score:	94,00%
Date of Evaluation:	28/06/2024

Legend:

- High-Risk Area
- Medium Risk Area
- Low Risk Area
- Not Evaluated

MEP Evaluation Card

VEDANTA GAMSBERG - IN PIT PARKING BAYS

EVALUATION CARD: IN PIT PARKING BAYS

Current Score	94,00%
Date of Evaluation	28/06/2024

Parking
MEP

Nr	Source of Control	Control	Status	Plan
6	MOSH TMLP - 14.2.2f	**In-pit parking:** Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Separation of vehicles – LDV, HMV and pedestrians.	IP	
7	MOSH TMLP - 14.2.2g	**In-pit parking:** Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Pedestrian access.	IP	
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11	MOSH TMLP - 14.2.2k	**In-pit parking:** Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Illumination.	IP	
14	MOSH TMLP - 14.2.2n	In-pit parking Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Fire management.	NIP	PCC
16	MOSH TMLP - 14.2.2p	In-pit parking Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Level to prevent runaways.	IP	
17	MOSH TMLP - 14.2.2q	In-pit parking Hard Parks / Dedicated parking areas. A mine with a fleet of TMM must have an established dedicated parking area to facilitate the safe and organised parking of TMM. When designing/ selecting the area the following should be taken into consideration: Protective berms.	IP	

Conclusion - summary

- With the promulgation of the L9 implementation, **NO Mine really knew what this would entail**
- NC has done great work through NCMMA and NCEWS, to help guide mines towards some **standardisation process**
- **MOSH and Minerals Councils Guidelines** were excellent to support the technology development process
- The Stage gate development through TRL1-4 and the remainder stage gates, was helpful, but a lot of questions only came out

During the fireproofing of the process (It was sort of **development in Progress**)

- OEM's had to consider the development process (TRL1-4) but also take in mind their **own readiness**.
- Mines got caught up in the middle of a perfect storm, which consisted of
  - Technology
  - Application of the technology
  - Integration of different technologies, with robust collaborations with People, Suppliers and Processes (**Change Management**)
  - Had to deal with their own **Operational challenges and limitations**
  - **Commercial funding** over a short to medium term period (CAPEX)
  - Mines haven't yet came to conclusion what the "unintended consequences" may be and it may even impact on the final version

  Of your Level 9 journey.

L9 in concept appeared simple, yet time has proven that it is a complex project


vedanta
transforming elements